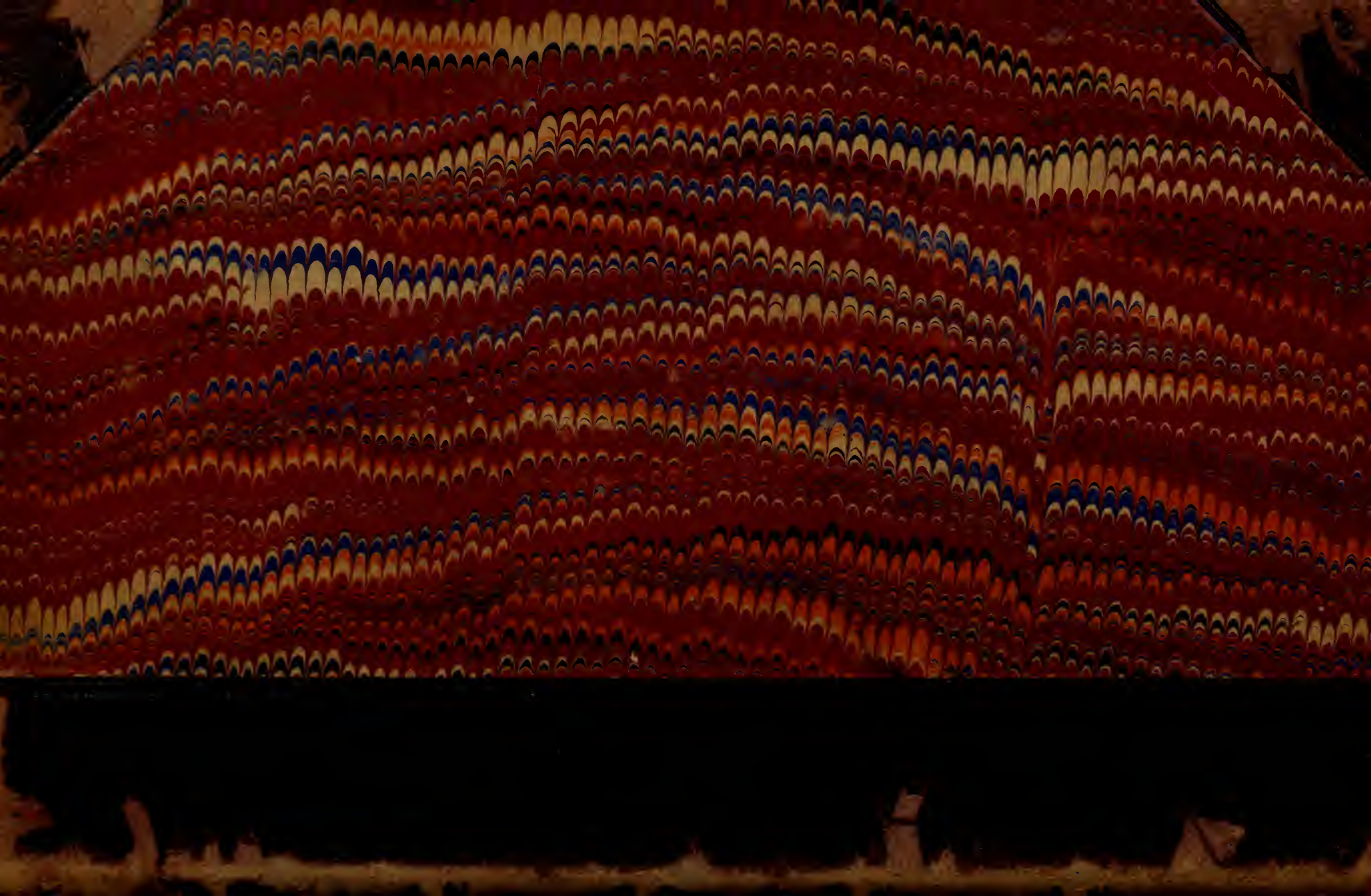


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EDITED BY

D. HACK TUKE, M.D.,
GEO. H. SAVAGE, M.D.

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"Nos vero intellectum longius a rebus non abstrahimus quam ut rerum imagines et radii (ut in sensu fit) coire possint."

FRANCIS BACON, *Proleg. Instaurat. Mag.*

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MDCCCLXXXIV.

"In adopting our title of the *Journal of Mental Science, published by authority of the Medico-Psychological Association*, we profess that we cultivate in our pages mental science of a particular kind, namely, such mental science as appertains to medical men who are engaged in the treatment of the insane. But it has been objected that the term mental science is inapplicable, and that the terms, mental physiology, or mental pathology, or psychology, or psychiatry (a term much affected by our German brethren), would have been more correct and appropriate; and that, moreover, we do not deal in mental science, which is properly the sphere of the aspiring metaphysical intellect. If mental science is strictly synonymous with metaphysics, these objections are certainly valid, for although we do not eschew metaphysical discussion, the aim of this Journal is certainly bent upon more attainable objects than the pursuit of those recondite inquiries which have occupied the most ambitious intellects from the time of Plato to the present, with so much labour and so little result. But while we admit that metaphysics may be called one department of mental science, we maintain that mental physiology and mental pathology are also mental science under a different aspect. While metaphysics may be called speculative mental science, mental physiology and pathology, with their vast range of inquiry into insanity, education, crime, and all things which tend to preserve mental health, or to produce mental disease, are not less questions of mental science in its practical, that is, in its sociological point of view. If it were not unjust to high mathematics to compare it in any way with abstruse metaphysics, it would illustrate our meaning to say that our practical mental science would fairly bear the same relation to the mental science of the metaphysicians as applied mathematics bears to the pure science. In both instances the aim of the pure science is the attainment of abstract truth; its utility, however, frequently going no further than to serve as a gymnasium for the intellect. In both instances the mixed science aims at, and, to a certain extent, attains immediate practical results of the greatest utility to the welfare of mankind; we therefore maintain that our Journal is not inaptly called the *Journal of Mental Science*, although the science may only attempt to deal with sociological and medical inquiries, relating either to the preservation of the health of the mind or to the amelioration or cure of its diseases; and although not soaring to the height of abstruse metaphysics, we only aim at such metaphysical knowledge as may be available to our purposes, as the mechanician uses the formularies of mathematics. This is our view of the kind of mental science which physicians engaged in the grave responsibility of caring for the mental health of their fellow men, may, in all modesty, pretend to cultivate; and while we cannot doubt that all additions to our certain knowledge in the speculative department of the science will be great gain, the necessities of duty and of danger must ever compel us to pursue that knowledge which is to be obtained in the practical departments of science, with the earnestness of real workmen. The captain of a ship would be none the worse for being well acquainted with the higher branches of astronomical science, but it is the practical part of that science as it is applicable to navigation which he is compelled to study."—*J. C. Bucknill, M.D., F.R.S.*

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PART 1.—ORIGINAL ARTICLES.

Relative Cost of Large and Small Asylums. By HENRY RAYNER, M.D., Medical Superintendent, Hanwell Asylum, Middlesex.

In support of the position that small asylums are, even from an economic point of view, better than very large ones, Dr. Hack Tuke, in his recent work on the "History of the Insane," cites the opinions of the Lunacy Commissioners, as given in their Report for 1857. He also gives in the appendix some figures which the Commissioners prepared in regard to the weekly cost of patients in large and small asylums, and which were adduced by them to support the same view. He found, however, that on taking an *average* of the six largest and six smallest asylums in the list, the weekly expenses per head in the latter appeared to be really greater than in the former—a result different from that for which he had cited them from the Blue-book.

No. of Beds.	Names of Asylums.	Average Weekly Cost per Patient.	Average Number of Patients to each Medical Officer.
		s. d.	
Less than 450 beds.	Nottingham, East Riding, Cambridge, Hereford, Suffolk, Derby, Berks, Bucks, Denbigh, Northumberland, Cumberland	9 $7\frac{1}{4}$	181
450 to 600.	Leicester, Dorset, Oxford, Carmarthen, Salop, North Riding, Burntwood, Cornwall, Northampton, Glamorgan, Wilts, Chester, Monmouth	8 $10\frac{7}{8}$	228
600 to 800.	Gloucester, Lincoln, Norfolk, Parkside, Warwick, Stafford, Rainhill, Chartham, Somerset, Worcester, Sussex, Hants, Devon	9 $3\frac{1}{2}$	265
Upwards of 800.	Beds, Essex, Durham, Wandsworth, Brookwood, Lancaster, Wadsley, Prestwich, Barming Heath, Whittingham, Wakefield, Banstead, Colney Hatch, Hanwell	9 $5\frac{3}{4}$	345

I do not believe the position which Dr. Tuke desired to establish is invalidated by these statistics, and I think that it is very important at the present moment to point this out. My reasons for this opinion are (1) In these returns, Borough Asylums, which are under a different management from County Asylums, are included. (2) The asylums chosen for comparison are as much too small as the contrasted class are too large, the average number of patients in the small asylums being only 211, a number which could not with economy support the necessarily complex staff of an asylum.

I have without selection divided the whole of the *County* Asylums into four classes in the foregoing table, which is compiled from the Thirty-sixth Report of the Commissioners in Lunacy; the statistics referring to the year 1881.

A Parliamentary Return for the year 1877, yields the following statistics, which include all asylums of which the returns were available :—

No. of Beds.	Names of Asylums.	Total No. of Beds.	Total cost of Six Asylums.	Average Cost per Bed.
			£	£
Not more than 450.	Notts, E. Riding, Cambridge, Hereford, Suffolk, Derby, Berks, Denbigh, Northumberland, Cumberland, Oxford, Carmarthen	4,580	785,570	171·5
450 to 600.	Bucks, Dorset, Salop, Wilts, N. Riding, Burntwood, Chester, Glamorgan, Cornwall, Monmouth, Stafford	6,307	963,122	152·7
600 to 800.	Gloucester, Lincoln, Parkside, Rainhill, Somerset, Hants, Worcester, Beds, Devon, Essex	7,099	1,303,166	183·5
800 upwards.	Durham, Wandsworth, Brookwood, Lancaster, Wadsley, Prestwich, Barming Heath, Whittingham, Wakefield, Banstead, Hanwell, Colney Hatch	16,428	3,215,717	196·9
	Banstead	1,700	276,422	162·9

A second Parliamentary Return for 1877 shows that—

Asylums of	The Average Cost per Annum of Repairs of Building per head.
Not more than 450 Beds.	£1·74
450 to 600 Beds.	£1·85
600 to 800 Beds.	£2·48
Upwards of 800 Beds.	£2·91

From these tables it appears, therefore, that the large asylums cost £44·2 per bed in construction, and £1·06 per bed annually in repairs more than the medium asylum of 450 to 600 beds; and that patients maintained in the former cost 6⅞d. per week more than in the latter. The medium sized asylums are even cheaper in construction than the large asylum at Banstead, built in the simplest manner, and with a special view to economy.

The medium sized asylums (450 to 600) have also the advantage, in the same comparisons, over asylums of 600 to 800 beds, in which it might have been expected that an increase of patients with little corresponding increase of staff would result in cheapness.

The medium sized asylums are chiefly in agricultural districts, and some deduction from these results must be made on this score; but even allowing for this, they would not be dearer than the large asylums, while they retain the advantage of supplying one medical officer to every 228 patients in place of one to 345.

These above facts are of importance at the present time, when so much additional accommodation is being provided for the insane.

Every available argument should be used to prevent the building of large receptacles for dementia, or the enlargement of asylums of manageable size, by which there is danger of diminishing the "individual and responsible treatment of the insane," on which so much of their welfare depends.

On the Recovery and Death-rates of Asylums as Influenced by Size and some other Circumstances. By T. A. CHAPMAN, M.D., Medical Superintendent, City and County Asylum, Hereford.

I have been incited by Dr. Rayner's paper in the "Lancet" of Dec. 30, 1882, to look up various old calculations of mine, bearing on the relation of size of asylums to efficiency and economy, and think it may be worth while to throw them together, that any lesson they may contain may be elicited. I find I have various tables of the relation of cost of maintenance in asylums to their size, and also several relating to the relative rates of recoveries and deaths in asylums of different sizes.

The figures as to variations of weekly cost in proportion to size, give exactly the same results as those which Dr. Rayner has derived from the figures for 1881, but they show them with some variations—chiefly in not showing so pronounced a rise for the large asylums in the earlier years.

1872 shows a rise of 5½d. for the large asylums over the lowest point; 1873, of 3½d.; 1878 shows a rise of 4d. The figures also suggest that the size of maximum economy extends from 400 to 700.

It is worthy of note that the lowest costs are largely determined by the existence of several asylums where lowness of cost is a special feature of the management. In Dr. Rayner's table, for example, the 450-600 class contains Caermarthen, Abergavenny, and Dorset; this does not, of course, detract from the real meaning of the figures, but rather illustrates it, as showing that the special detailed supervision necessary to such low costs can only be efficiently carried on in asylums of not unwieldy size.

An important question suggests itself as to how far cost and efficiency are related—as to whether asylums spending larger sums of money produce better results, and how far a rigid economy may tend to impair efficiency. If we take the divisions made by Dr. Rayner, we find the recovery and death-rates for the last five years as under:—

TABLE A.

Asylums under	Recovery Rate.	Death Rate.	D.	Av. cost. (Dr. Rayner). s.	d.
450	37·0	10·1	3·66	9	7¼
450-600	33·8	9·2	3·66	8	10⅞
600-800	37·6	10·9	3·45	9	3½
Over 800	37·6	10·1	3·72	9	5¾

These figures are taken from the asylum reports, and differ somewhat from those taken from the Commissioners' Reports used in Table E.

Now, at first view, the cheapest asylums have much the lowest recovery rate, and stand condemned, but we see also on looking further that they have much the lowest death-rate, and it is obvious that if undue economy checked recoveries it would much more increase deaths, and we must conclude that some other circumstances than the cost are at work to produce these ratios. To more clearly indicate this I have placed in column D what might be called a figure of merit, obtained by dividing the recovery-rate by the death-rate. Whilst not suggesting that a figure of merit so obtained correctly represents either merit or a due weighing of death-rate against recovery-rate, it will serve to show that efficiency and expenditure do not in any way rise and fall together.

The true relation of the recovery and death-rates to expenditure appears to me to be illustrated in the following analysis :—

In 19 asylums in which the recoveries and deaths are both below an average, the cost is 9s. 1d. In five asylums in which the recovery and death-rates are both above an average, the cost is 9s. 7d. And in 10 asylums, where the recoveries are high and the deaths low, the cost averages 9s. 6½d., which is identical with that in 18 asylums with a low recovery-rate and a high death-rate—whence we may conclude that an actively moving population, one affording a larger proportion of active disease, whether of a curable or fatal character, adds materially to the costs in asylums. We may tabulate them thus :—

Table M.

	Aver. Recovery Rate.	Aver. Death Rate.	Cost.
			s. d.
5 Asylums with high recovery and death-rates.	44·4	10·7	9 7
10 Asylums with high recovery rate, low death-rate.	43·3	8·8	9 6½
18 Asylums with low recovery rate, high death-rate.	32·7	12·1	9 6
19 Asylums with low recovery rate, low death-rate.	34·6	8·7	9 1

The effect of size on the recovery and death rates is, however, of more importance than the question of its effect on cost, especially from a medical standpoint. I find that I have tables of these facts for 1861-1865, 1866-1869, 1870-1875, and I have now worked them out for 1877-1881.

Now the table for 1861-1865 was beautifully regular, and read thus:—

TABLE B.

Recovery and death-rates in asylums of different sizes based on 219 asylum-years in 1861-1865.

Asylum years.	Size of Asylums.	Admissions.	Recoveries.	Average No. Resident.	Death.	P.c. of recoveries on admission.	P.c. Deaths on average No. Resident.	P.c. Admissions of av. No. Resident.
8	under 100	205	33	411	37	16·40	9·00	50·0
9	100-200	480	140	1,374	136	29·17	9·90	28·6
27	200-300	2,279	835	6,810	681	36·64	10·00	30
49	300-400	5,444	2,174	17,599	1,902	39·93	10·80	32
55	400-500	6,896	2,749	20,491	2,224	39·86	10·85	29
28	500-600	4,840	1,917	14,913	1,669	39·61	11·19	31
15	600-700	2,740	1,088	9,790	1,119	39·71	11·43	35
28	over 700	8,638	2,879	33,402	3,594	33·33	10·76	39
219								

Which may be condensed thus:—

44	under 300	2,964	1,008	8,595	854	33·70	9·93	34
147	300-700	19,920	7,918	62,793	6,914	39·80	11·01	31
28	over 700	8,638	2,879	33,402	3,594	33·33	10·76	39
219		31,522	11,815	104,790	11,362			

This table dealt with 31,522 admissions, and an average number resident of 104,790, and strongly asserted that the curative efficiency of asylums was parallel with their economical, whilst the death rate gradually increased with the size of the asylum, the fall in the death rate of the largest asylums not being sufficient to counterbalance the loss of curative efficiency. However, I waited for a further set of figures before saying anything about these. When the table for 1866-1869 was worked out, it showed that the regularity of the above table was largely fortuitous. The table for 1866-1869 read thus:—

Table C.

Recovery and death rates in asylums of different sizes, based on 170 asylum years, 1866-1869.

Asylum years.	Size of Asylums.	Admissions.	Recoveries.	Average No. Resident.	Death.	Recoveries p.c. on admission.	Deaths p.c. on average No. Resident.	Admissions p.c. on av. No. Resident.
10	100-200	532	197	1,487	150	37·03	10·87	35·8
13	200-300	954	382	3,305	329	40·04	9·96	28·8
32	300-400	3,572	1,375	11,279	1,281	38·49	11·36	31·6
41	400-500	5,434	2,068	18,692	1,980	38·05	10·59	29·0
34	500-600	5,993	2,487	18,498	2,287	41·49	12·36	32·4
19	600-700	3,181	1,181	12,163	1,311	37·13	10·78	26·1
21	over 700	8,461	2,925	34,613	3,453	34·57	9·97	24·4
170								

Which may be condensed thus :—

55	under 400	5,058	1,954	16,071	1,760	38·2	10·9	31·5
75	400-600	11,427	4,555	37,190	4,267	39·9	11·4	30·7
40	over 600	11,642	4,106	46,776	4,764	35·7	10·2	24·8
170		28,127	10,615	100,037	10,791			

And for 1870-1875.

Table D.

Recovery of death-rates in asylums of different sizes, based on 314 asylum-years in 1870-75.

Number of Asylum years.	Size of Asylums.	No. of Admissions.	No. of Recoveries.	Average No. Restored.	Death.	Percentage of Recoveries on admission.	P.c. of Deaths on av. No. Resident.	P.c. of Admissions of av. No. Resident.
15	under 200	891	346	2,095	313	39·06	14·93	44
41	200-300	3.215	1,122	10,652	1,150	34·89	10·83	30
36	300-400	4,034	1,531	13,053	1,480	37·95	11·32	31
73	400-500	8,953	3,319	32,428	3,421	37·07	10·55	27
46	500-600	8,008	3,154	25,039	2,918	39·44	11·65	32
50	600-700	9,526	3,509	32,314	3,513	36·84	10·87	29
16	700-1000	3,652	1,334	12,843	1,306	36·52	10·18	28
37	over 1000	15,044	5,599	52,409	5,130	37·22	9·78	29
314								

Which may be condensed thus :—

56	under 300	4,106	1,470	12,748	1,463	35·8	11·4	31
205	300-700	30,521	11,513	102,834	11,332	37·7	11·0	29
53	over 700	18,696	6,933	65,252	6,436	37·1	9·8	28
314		53,323	19,916	180,834	32,231			

These tables do not run by any means so smoothly as Table B, but they give, when condensed, substantially the same results. And it cannot be denied that figures based on 704 asylum-years, and dealing with 112,972 admissions and 385,661 as an average number resident, press any conclusion they point to with great weight, and that conclusion is clearly in favour of moderate sized asylums of from 300-700 patients, as showing a much more satisfactory ratio of recoveries than either smaller or larger ones, but that this is counterbalanced to a decided degree by a higher death rate, though we shall see that the death rate appears to depend on other circumstances than the size of the asylum.

When we come to the figures for 1877 to 1881, we find an entirely different conclusion suggested, and are induced to suspect that the recovery rates may have very little connection with the size of asylums.

Table E.

Recovery and death rates for asylums of different sizes for the five years 1877-1881.

Asylum Years.	Size of Asylums.	Recoveries.	Deaths.
10	under 200	36·0	14·0
16	200-300	35·6	10·2
36	300-400	35·9	9·9
47	400-500	39·9	9·9
55	500-600	35·7	10·0
39	600-700	38·6	11·0
20	700-800	36·7	10·8
12	800-900	38·5	10·3
7	900-1000	39·9	10·4
50	over 1000	42·0	9·7
292			

I did not take out these figures in the detailed way I had done with those in the former tables, but simply took the

recovery and death-rates and treated them as of equal value and averaged them. I believe this does not affect the accuracy of the recovery rate higher than the first decimal place, or the death rate above the second decimal place. This table shows, like the others, a low mortality for the largest and for small asylums, and a high mortality for the smallest. The recovery rates range also with the others, viz.: the best ratio for the moderate sized asylums, and worse rates above and below, with, however, this all-important exception that asylums over 900 have the best recovery rates of any.

This high recovery rate for large asylums is at first sight perplexing, being in direct contradiction to the teaching of the preceding Tables, and suggests that large asylums have during the past five years conquered the difficulties that previously beset them. But I believe they have no such meaning, and that the key to the position will be found in Table F.b.

I have endeavoured to ascertain what other forces dominate the recovery and death rates, with a view to interpreting the above tables. The meagreness of the items, in this direction, that I have been able to elucidate, is due very much to the paucity of any available material on which to found statistical inquiry, and to some extent to the laboriousness of collating the materials that do exist. There are still in the Table of Asylum Reports some materials that I hope some day to examine, but I do not yet see how to bring them to bear satisfactorily, even with much tedious work upon them.

There is a powerful element governing the recovery rates, in the different class of cases admitted into different asylums; indeed this is probably beyond all others the dominant element, but unfortunately we have hardly any statistical means of investigating it. We see marked instances of its influence in the case of Hanwell, where statistics wonderfully improve on the opening of Banstead, whose statistics however are very bad, the reason being that Hanwell gets a larger share of favourable cases than before, Banstead the unfavourable. A similar element appears to exist in the improvement of the Prestwich statistics on the opening of Whittingham.

It has occurred to me that Table XI. of the Commissioners' reports can be used to throw a little light on this point; by comparing Table XI. for 1878 with that for 1882 we may determine those counties where the increase of the

proportion (not the number, but the proportion) of patients in asylums at the expense of home and workhouse cases is going on most rapidly. These asylums must be receiving among their admissions a larger proportion of chronic cases than other asylums are, and in these we should therefore expect to find a lower recovery rate and probably also a lower death rate, though these workhouse cases often afford many non-viable cases of cerebral disease.

Nineteen counties have added to their asylum population at the expense of the home and workhouse cases more than 4·5 p.c. of their total lunatics during the five years. Of these counties only one reaches a recovery rate of 39·1, and only two others are above 35.

If, on the other hand, we take the nine counties (not asylums) with recovery rates above an average, we find that they have added only 2·2 p.c. The reverse does not hold good in the twelve counties with the lowest increase of workhouse cases in asylums, but show a recovery rate of only 37·2. But this group contains Staffordshire, which for some reason has very bad statistics, and also Oxford, Berks, and Cambs., which belong naturally to the group with large increase of workhouse cases, so that one suspects here some error in the returns.

The 19 counties in the first group are chiefly agricultural, Durham being an exception I cannot explain; Middlesex is an exception that is explainable by the filling of the Banstead Asylum during the period covered by the Table.

From the same Table XI. of the Commissioners' Report, however, a still stronger light may be thrown on the real cause of high and low recovery rates. In many counties workhouses are largely used as receptacles for lunatics, and if we make a list from this table of those that appear to do so most, and those that appear to do so least, we find that the first group contains all, with three exceptions, the asylums with good recovery rates, whilst the other group only contains asylums with low rates of recovery also with one exception.

It is therefore obvious that whatever may obtain in the three exceptional counties, that, in those with high rates of recovery and large use of workhouses, a selection of cases for asylum treatment is made, the workhouses getting the unfavourable cases. In those where workhouses are sparingly used, the asylums get all the cases.

These figures may be tabulated as in Table F on opposite page.

Table F.

Relation of Recovery Rate to the Increase (per cent.) of Lunatics in the Asylum, at the Expense of Homes and Workhouses.

Number of Counties.	Average Increase of Percentage in Asylums.	Average Recovery Rate.	Highest Rate of Recovery.	Lowest Rate of Recovery.	Death Rate.
19 Counties, With over 4·5 increase, viz., Hereford (13·0), Northumberland (8·9), Worcester, Dorset, Wilts, Durham, Northampton, Middlesex (Beds, Herts, Hunts), 5 North Welsh Counties, Norfolk (5·7), Hants (4.8), Somerset (4·6)	6·8	33·7	39·1	27·1	9·7
9 Counties, With over average Recovery Rate, viz., Surrey (4·4), Leicester, North Riding, Chester, Lancaster, E. Riding (1·8), Cumberland (1.7), Essex (1·4), Gloucester (0.7)	2·2	43·3	51·0	40·1	10·8
12 Counties, With low increase (1·8 to 2·5)	0·2	37·2	51·0	28·4	9·6

Table F.b.

No. of Counties.	Percentage of Lunatics in Workhouses.	Average percentage of Total Lunatics in Workhouses.	Recovery Rate.
5	over 30 p.c.	33·1	40·9
14	20 to 30 p.c.	22·5	36·9
8	under 15	13·0	31·2

As this table throws more light than any other on the question as to whether giant asylums have good recovery rates owing to their size, I give the items of this table in

full, and have marked those counties that have giant asylums. It will be seen that these hardly have recovery rates in due proportion to the use they make of workhouses.

I have only omitted certain Welsh counties, which are too muddled together for the purposes of this table.

TABLE F.b2.

Counties.	Percentage of Cases in Workhouses.	Recovery Rate.
Middlesex	36·3*	34·7
Lancaster	36·2*	40·1
Gloucester	32·6	46·7
E. Riding	30·5	41·2
Surrey	30·3*	41·9
Stafford	26·6	28·4
West Riding	26·4*	37·1
Sussex	23·2	31·5
Salop	22·9	37·6
Montgomery	22·1	
Somerset	22·5	37·1
Westmoreland	22·4	51·0
Cumberland	19·2	
Southampton	22·2	36·4
Northampton	22·2	28·0
Kent	22·0*	36·8
Chester	21·5	42·1
Derby	21·1	39·0
Notts	20·7	35·3
Devon	20·6	38·3
Warwick	20·1	34·5
Three counties with high recovery rates and smaller percentage in Workhouses.		
Essex	18·6	40·2
N. Riding	11·8	43·8
Leicester	17·9	42·8
Six asylums with less than 15 p.c. in Workhouses.		
Bucks	14·1	34·2
Dorset	14·1	34·6
Cambridge	13·4	31·2
Beds (Herts, Hunts)	12·8	27·1
Hereford	12·4	33·8
Glamorgan	11·1	26·6

* Have giant asylums.

The three counties that are exceptional in this table appear, however, by Table F, to receive but a small ratio of "workhouse cases."

The question how far high recovery and death rates are concomitant or antagonistic is interesting, and I have worked out the following tables:—

Table G.

Recovery rates corresponding to given death rates. Years 1877-1881.

Death Rate.	No. of Asylum Years.	Recovery Rates.
Under 6 p.c.	14	40·8
6-7 ,,	18	40·9
7-8 ,,	22	40·4
8-9 ,,	40	39·5
9-10 ,,	43	40·4
10-11 ,,	49	38·7
11-12 ,,	32	38·8
Over 12	59	35·7

Table H.

Death rates corresponding to given recovery rates. Years 1877-1881.

Recovery Rates.	Number of Asylum Years.	Death Rates.
Under 20 p.c.	5	10·1
20-25 ,,	10	9·9
25-30 ,,	29	10·9
30-35 ,,	54	10·6
35-40 ,,	74	10·2
40-45 ,,	56	10·2*
45-50 ,,	36	9·8
Over 50 ,,	28	9·1

A certain allowance must be made here for such instances as that of Hanwell and Banstead, where one asylum has good statistics at the expense of another. I do not think that these instances are sufficiently numerous to materially affect the broad result of these tables.

From these it distinctly appears that low death-rates go with high recovery rates and *vice versâ*, notwithstanding that many individual asylums present statistics very much the other way.

* Omitting a small Borough with 24·2 p.c.

As the death rates rise from 6 to 12 per cent. the recovery rate falls from 40·8 to 35·7. This would have been seen without the intervention of the slight fluctuations shown in the table, had the death rates been grouped thus: Under 7 p.c., 7-10 p.c., 10-12 p.c., over 12.

In Table H the lowest recovery rates (under 25 p.c.) have low death rates, but as these are founded on only 15 asylum years they may be neglected as not appreciably interfering with the main indication of the table, that as the recovery rate rises from 25 to 50, so the death rate falls from 10·9 to 9·1.

I do not think these tables justify any conclusion to the effect that the ranges of recovery and death rate shown are a measure of the effect that may be produced on these rates by differences of efficiency in the several asylums, viz., that the recovery rate would, *cæteris paribus*, be found to be, if we could ascertain the fact, 5·0 p.c. higher, and the death rate 1·8 p.c. lower in the most efficient asylum than in the least so, though I am inclined to believe that the tables do contain an element pointing in that direction.

Table K.

Table showing the Relation of the Death Rate to the Percentage which the Admissions bear to the Average Number Resident. 1877-1881, based on the average for five years.

Number of Asylums.	Admission percentage of Average No. Resident.	Death Rate.			No. of Asylums Below 10 p.c.	Percentage of Asylums Below 10 p.c.
		Average.	Lowest.	Highest.		
4	16—20	7·1	4·6	9·7	All	100
15	21—25	9·0	6·5	11·2	13	86
20	26—30	10·6	7·9	13·1	7	35
12	31—35	10·7	6·6	14·3	4	33
7	Over 35	12·9	8·6	17·0	1	14

This table shows the most unmistakable relation between

the facts exhibited in it of any I am able to give. I showed some years ago that the recent admissions present much the largest death rates. I may briefly summarise the facts there shown thus:—

Table L.

Mortality of Patients during different Years of Residence in Asylums, p.c. of Av. No. Resident.

During 1st Year.	2nd Year.	3rd Year.	4th & 5th Year.	6th & 10th Year.	Over 10 Years.
23·93	12·02	10·45	7·69	5·67	4·93

From this evidence we might have been certain without Table K that asylums whose admission bore a high ratio to their average number resident would present a correspondingly higher death rate, as they must have a larger proportion of patients of shorter periods of residence.

If we return to Tables B, C, and D, in each of which I have placed a column showing the ratio of admission to average numbers, and arrange these ratios in order, with the corresponding death rates thus, we find that the death rates follow them exactly, with two exceptions: 1st, where the numbers involved are small, so that a fair average is not attained; 2nd, in two of the tables in favour of the large asylums.

Table N.

From Table B.		From Table C.		From Table D.	
28·6	9·9	24·4	9·97*	27	10·55
29·	10·85	26·1	10·78	28	10·18
30·	10·	28·8	9·96 small basis	29	9·78*
31·	11·19	29·0	10·59	29	10·87
32·	10·80	31·6	11·36	30	10·83
35·	11·43	32·4	12·36	31	11·32
39·	10·76*	35·8	10·87 small basis	32	11·65
50·	9·0 small basis			44	14·93

It is possible to select a group of asylums belonging to rural and agricultural counties that have a low rate of mortality. Thirteen such selected counties have an average death rate of 8·3, whilst a group of seven manufacturing counties can be selected having a high mortality, viz., 12·3. The recovery rates in these two groups, 35·9 and 34·4, do not

* Large asylums.

appear to be specially affected by this line of selection; whilst there are several notable exceptions that have to be omitted from both lists, viz., Lincoln 13·8, Norfolk 10·9, Sussex 11·2, Hants 12·2, and Suffolk 14·3 from the rural group; and Hanwell, Prestwich, and one or two others perhaps are exceptions in the urban and manufacturing group. Then, of course, such counties as Worcester, Northumberland, &c., are too mixed to belong distinctly to either.

There are a few asylums where there are special circumstances that make their statistics unusual, and either remove the asylum from the group to which it belongs, or if kept within it destroys the special features of the group. In only the rarest instances have I any idea what these special circumstances are. In Table K Prestwich takes a very exceptional place, belonging to a group with a 10·7 mortality, and yet it has a mortality of only 6·6. Prestwich is indeed a trump card in the hands of any one who advocates large asylums on the ground of their favourable statistics, and it must be conceded that the very efficient state and high organization of that asylum must have their effect in improving these statistics; but a reference to Table F and F.b2 will show that the high recovery rate is due most of all to a selection of cases, the less favourable being remitted to the workhouses. A reference to Table K would suggest that it ought to have a high death rate, whereas it has one of the very lowest. Prestwich, however, presents an unusual figure in its statistics which probably points to the most potent element in producing this low death rate, and that is the very large proportion of cases discharged unrecovered, including doubtless many cases returned to the workhouses that would otherwise have swelled the mortality. Suffolk, in the same group, has, on the other hand, a mortality of 14·3. In this instance we are aware that the sanitary condition of the asylum has been very defective. Stafford again has very poor statistics, for which I can only suggest the exceptional conditions known to affect the industrial population of that county.

The conclusions at which I arrive after this investigation are still unfavourable to large asylums, but I confess not so strongly as, derived from a more limited view of the statistics, they were before I commenced it.

I.—As to *Cost*, Table M. suggests that the cheapness of moderate-sized asylums is due not entirely to their size, but also to the circum-

stance that they happen to contain a smaller proportion of active disease amongst their patients; if the tables may be implictly trusted, about one-third of the saving in cost is due to this circumstance.

II.—As to *Recoveries*. In the earlier periods when large asylums were neither so numerous nor so gigantic as now, they had a comparatively poor rate of recoveries, and they maintained this position until the last five or six years, during which they present very much the most favourable rates. This improvement in recent years is, however, fully, I am inclined to think more than fully, discounted on noting that these large asylums belong to large and populous districts, with considerable differentiation in the modes of accommodating lunatics—in Middlesex and Surrey by the Metropolitan District Asylum, and in the others by large lunatic wards to workhouses—the asylums receiving selected favourable cases, the workhouses the unfavourable. In Tables F and Fb, Surrey is the only county with large asylums that maintains a relatively good position.

III.—As to *Death-rates*, the proportion which the admissions bear to the average number resident is much the most powerful element governing the death rate. Of the large asylums, Hanwell and Prestwich both take a good position from this aspect. I have already alluded to the exceptional causes of this in these instances. Wandsworth also takes a good position, and throughout the large asylums appear to advantage from this point of view; a circumstance that is probably, however, to be largely explained by the use made by them of workhouses, either by sending to them in the first instance or transferring to them afterwards the least hopeful cases.

IV.—As conclusions reached by the way and more firmly established, as well, perhaps, as of greater, if not more practical, interest than those bearing on sizes of asylums, I may note—

(1) That a rapid increase in the proportion in the asylum of the total lunatics of a district, which is more or less synonymous with the free admission of chronic cases previously kept in workhouses or at home, results in a low ratio of recoveries, without any distinct effect on the death rate, but probably slightly reducing it. (See Table F.)

(2) That the accommodation of a large proportion of the lunatics of a district in workhouses results in selected cases being sent to asylums, and consequently these asylums present higher rates of recovery. (See Table Fb.)

(3) That satisfactory recovery rates tend to go with satisfactory death rates (Tables G, H), and after allowing for such disturbing elements as noted above (2), and for certain asylums showing good rates at the expense of others, there is a probable margin due to efficiency.

(4) That the proportion of admissions to the average number resident determines more than anything else the death rates of asylums. (Table K.)

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On the Character and Hallucinations of Joan of Arc. By William W. Ireland, M.D., Home and School for Imbeciles, Preston Lodge, Prestonpans.

(*Concluded from No.* cxxiv., *p.* 492.)

Joan's glory reached its highest point when she led the Dauphin to be crowned at Rheims. Up to this time every thing had gone on as she desired, and as she had predicted. The caution of experienced generals had again and again been overruled by her impetuous call for action. One blow after another had been struck, and every blow told. Fortifications, apparently too strong for the force brought against them, had been stormed; seven cities had been taken; and at Patay an English army had been scattered and slaughtered like a herd of deer. The newly-crowned King was urged unwillingly to St. Denis, and a furious assault made upon Paris from noon to sunset.

The martial maid was wounded by an arrow from the wall, and carried against her will out of the ditch. She wished the assault to be renewed next day, which the Duke of Alençon and others enthusiastically attached to her, were anxious should be done, but the King seemed to have lost courage, and left. Joan and the rest were compelled to follow. She had given out that her voices had revealed that she would lead the King in triumph into Paris; and this was a check which could not fail to raise misgivings in the minds of her admirers, and to strengthen the doubts of those not fully convinced of her heavenly inspiration. From this date, 13th September, 1429, Joan ceased to have the forces of France at her disposal, and was obliged, with Alençon and a few brave knights of France and Scotland, to engage in smaller enterprises. Three or four places were taken from the enemy, but she was obliged to raise the siege of La Charité, because, as we are told, the King did not arrange to send her provisions or money to maintain her company. Envy and jealousy play a large part in human affairs. The simple peasant girl who had done so much for France was adored by the people, who crowded around her to kiss her garments, and soldiers were willing to fight under her banner without pay; but some of the councillors of the French king did not seem even to have the sense to perceive the wonderful power she had set in motion, and disliked her because they thought they were entitled to some of the praise which was

lavished upon the holy maid. On the 21st May she threw herself into Compiègne which was besieged by the Burgundians, and in a sally was surrounded, pulled off her horse, and taken prisoner by some soldiers of John of Luxembourg. She was seen by the Duke of Burgundy, and then sent to Beaulieu, where she remained above two months, when she was removed to the Castle of Beaurevoir. During the six months she was in the hands of the Burgundians she was very strictly confined, and kept in irons for fear she would escape. The ladies who visited the prisoner teased her to wear petticoats, to which she had clearly a strong dislike; and one at least of the gentlemen who saw her acknowledged using indecent liberties with the maiden. It does not seem that Charles made any attempt to ransom or rescue her, though he must have known her extreme danger, for the English had proclaimed that they would burn her if they took her, and they had even threatened to burn her herald at Orleans as a messenger from Satan. At last she was sold to the English by John of Luxembourg for a thousand livres and a yearly pension of two hundred more. When she heard of this she threw herself from the tower of Beaurevoir, and was picked up insensible at the foot. She herself said that she could neither eat nor drink for two or three days after. She said that she did this not with the intention of committing suicide, but with hopes of escaping, thinking that it was better to risk death than to fall into the hands of the English. She said that St. Catherine had forbidden her to throw herself from the tower, but had afterwards comforted her and advised her to confess and ask pardon of God, on which she took heart and began again to eat, and soon recovered.

The English took her to Rouen, and the treatment to which she was subjected might have deranged a strong mind. She was heavily chained by the ankles, and fastened to a beam, and watched by a guard of five fellows of the lowest sort, who teased and mocked the poor girl, and several times tried to violate her. On one occasion Joan's cries were heard by the Earl of Warwick, who rescued her, this not being the kind of revenge which he had in view. The men of war made little concealment that they had bought her in order to burn her. The Earl of Warwick, who commanded at Rouen, hearing that she was ill, sent doctors to attend her, because it would be displeasing to the King if she should die a natural death. The King held her dear, and had bought her dear, nor did he wish that she should die, unless by

the hands of justice, and that she should be burned. The doctors found her feverish and advised bleeding, and the Earl was fearful that she might pass away under their hands. Nevertheless she was bled, and seemed recovering, when one Master John de Estevet entered, who abused her in the coarse terms put by Shakspere in the mouths of English noblemen, unfortunately quite in keeping with historical truth. This made Joan very angry, and caused the fever to return. We see the same circumspect Earl of Warwick protecting the captive girl when the Earl of Stafford half drew his dagger to strike her because she said that a hundred thousand English could not win France. There was no reason why she should not be treated like other prisoners of war. She had never violated any of the laws of war, and indeed had been more merciful than most of the combatants of the time. Besides there were English prisoners in the hands of the French who might become the subjects of reprisal; or perhaps in the fortune of war Warwick might some day fall into the hands of the enemy, as Talbot, and Scales, and Warwick's own son had done. It was prudent, therefore, to establish some distinction between Joan and other prisoners, and to arrive at this it was necessary to make her go through the form of a trial. The infamy of conducting these proceedings belongs to Peter Cauchon, Bishop of Beauvais—a man who bore amongst his friends at least a fine character—along with a judicious selection of abbots, doctors of divinity and of canon law, and other learned and holy personages. The trial was dragged over four months. This girl, who was no older than twenty, and who could not read, but had passed a year in camps, and nearly a year in prison, was subjected to perplexing cross-examinations and insidious questions for six hours a day. Her answers were put down, though in a somewhat garbled manner, and then fresh questions contrived. Nicholas Loiselleur, a creature of the Bishop of Beauvais, was introduced into her cell, with instructions to pass himself off as a prisoner on the same side as herself, and try to lead her into unguarded disclosures, which were listened to through an aperture in the wall. The same man was afterwards made to act as her confessor. While they sometimes questioned and upbraided her, two or three at a time, no one was allowed to give her counsel, and some members of the court who were thought to favour her had to leave for fear of their lives. Even the Bishop of Beauvais was accused of being too slack, which he angrily denied, as endangering his hopes of preferment under his English masters. Notes of the

process have come down to us, of course much shorter than the actual proceedings, but helping us to realize the unfairness, stupidity, and cruelty of these pompous pedants.

Joan boldly defended the truth of her revelations, even when threatened with torture. She said that she had heard the voices every day in her prison, and that light accompanied the voices. Visions, if they appeared at all, were much less frequent. The angel Gabriel conversed with her on one occasion; the voices told her that it was he. But the voices of St. Catherine and St. Margaret were often in her ears. They told her to answer boldly. Sometimes they came without her asking; sometimes their voices awaked her from sleep; and sometimes the voices were drowned by the noise made by her guards. They told her what to say, and when she prayed to God for them they came immediately. Sometimes the saints would ask God what she should say, and return with the answer. They promised that she should be freed from prison, but in what manner she did not know. "Take everything cheerfully," they said. "Do not distress yourself about your martyrdom, you will come at last into the Kingdom of Heaven."

Manchon, the notary, who was present at the trial, and who took part in translating the proceedings into Latin, examined afterwards at the *procès de réhabilitation,* said that Joan appeared to him to be very simple, though sometimes she answered very prudently, and sometimes simply enough. As far as can now be judged, some of her replies were very skilful. She generally refused to answer questions which were not to the point, or to be twice examined on the same matter. Her woman's wit showed her that these pretended judges were her cruel enemies, but she had a deep veneration for the authority of the Church of which they claimed to be the representatives.

Her judges evidently believed that she was deceived by evil spirits, who took the form of saints and angels. They had got hold of a story of her consulting with the fairies under an ancient beech tree, in a grove near her father's house. Under this old tree, where of old the fairies were said to have been seen, the boys and girls of Domremy used to assemble in the spring and summer time to sing and dance, after which they went to drink at a fountain near. Joan acknowledged having danced with other girls under the tree, but she never saw any fairies nor knew of any one who had done so.

The Court interrogated Joan about her relations with a woman called Catherine of Rochelle, who advanced pretentions similar to her own. This Catherine gave out that a white lady dressed

in cloth of gold appeared to her and told her to ask the King for trumpeters and others to go about collecting money to pay Joan's soldiers. She also claimed the power to discover hidden treasures. The maid told this new partisan to go home to her husband and look after her children; and to make sure, she consulted St. Catherine and St. Margaret about this new claim, who told her that it was madness, and would come to nothing. She slept a night with Catherine to see whether the white lady would come. Catherine told her that the apparition had come when she was asleep. Joan therefore slept during the day so as to be able to remain awake all night. She often asked Catherine whether the white lady would come, to which Catherine answered "She would come soon."

Perhaps it did not then occur to Joan that she was using a test which might be used against herself; for she could no more make her voices be heard, or her visions be seen by any one save herself than this adventuress. In fact it is the character of visions in every age that they are only seen by the ghost-seers. This Catherine of Rochelle having fallen into the hands of the English, had denounced Joan as in league with the devil. Another imitator of Joan, called Peronne, was also taken by them.

When pressed by the Court that she ought to give a sign, otherwise she had no reason to claim more credit than Catherine of Rochelle, Joan was led to make obscure references to a sign with which she had been favoured, till she was at last drawn on to make a positive statement, somewhat against her will—for she used ambiguous expressions, refused to answer several times, and asked them if they wanted her to commit perjury. The statement is so strange that it merits consideration as bearing upon her mental condition.

She said that when she was at Chinon the Archangel Michael came, with a great multitude of angels, to the house of a woman where she was living, and taking her by the hand led her up to the King's castle, and into the royal chamber, and gave to the Archbishop of Rheims a rich crown of gold, which he placed upon the King's head. She said that this was done in the presence of Charles of Bourbon, the Lord of Trémouille, the Duke of Alençon, and several others; and that this crown was still in the royal treasury. Joan herself went into a small chapel near, where the angel followed and then disappeared.

The Court offered to allow her to write to some of the persons she mentioned, to see if they would confirm this statement under their seals; to which she answered, "Give me a

messenger, and I shall write to them about this whole trial." On another occasion she was asked to refer to the Archbishop of Rheims about this story of the crown. "Make him come," she replied, "and then I shall answer about this to you, nor will he dare to say the contrary of what I have told you."

As a postscript to the trial, and in the same handwriting, there were some additional notes made by six of the judges who had visited Joan in prison during the few days of depression between her abjuration and her death. These men stated on oath that Joan acknowledged that she herself was the angel who brought the crown to the King, and no other, and that she was the messenger who announced that the King would be crowned at Rheims. Being interrogated whether the apparitions were real, she replied, "Whether they were good or bad spirits they appeared to me." She said that she heard voices, especially when the bells were sounded, and that the apparitions appeared in great multitude and small quantity, as a crowd of figures of small size; but she could not be got to enter into any defined description.* Three of the witnesses, one of whom was Loiselleur, the spy, stated their impression that Joan was at that time of sound mind, a question which seems to have received little consideration during her trial and imprisonment. They declared that, up to her very last moments, she persevered in the reality of the apparitions. At the stake she was heard to invoke the angel Michael, though on one occasion, at least, she said she thought they must be bad spirits since they had deceived her with promises that she would be delivered from the hands of her enemies.

Of course she was condemned, and ordered to submit herself to the authority of the Church, and renounce her errors, or she would be burnt that very day. The executioner, or torturer, as he was called, was waiting for her with his cart. Under terror of such a painful death, Joan consented to make a recantation, which apparently was different from the one afterwards published by the Court. She was then sentenced to perpetual imprisonment.

The poor maid expected to be put into the custody of the Church, and to have some of her own sex near, but she was sent back to her old prison, and the guards treated her as

* Inquirebant ab ea utrum verum erat quod ipsas voces et apparitiones habuiesset; et ipsa respondebat quod sic. Et in illo proposito continuavit usque ad finem, et non determinabat proprie (saltem quod audiret loquens), in qua specie veniebant, nisi prout melius recolit, veniebant in magna multitudine et quantitate minima.—Tome i., p. 479.

Apparebant sibi sub specie quarumdam rerum minimarum—p. 480.

roughly as before. It had been one of the articles of accusation that she wore a male dress, and she had promised not to resume it. The voices reproached her for her abjuration, and said that she ought to have resisted to the last. The English, on their part, were disappointed that she had not been sentenced to death. In four days it was announced that Joan had put on the old male dress which had still remained in her room.* This was seized upon as a relapse, the judges entered her prison. "She is caught now," the Bishop of Beauvais was heard to say. He was very jocund with the Earl of Warwick. "Farewell," he added, "make good cheer, the thing is done." On the 30th of May, 1431, she was delivered over to the secular arm, and a few hours afterwards led to be burned in the old market-place of Rouen. Joan was much affected on being told the cruel death she had to die, and went weeping to the stake. She maintained the reality of her revelations to the end, and was heard to invoke Michael and St. Catherine. We have an account of her last hours from Martin Ladvenu, a Dominican, who heard her confession, followed her to the stake, and sat with her till the fire came near, when she told him to descend and to hold the cross before her till she expired. After it was seen that she was dead, the faggots were pulled apart, and her body, still tied to the stake, was shown to the crowd. The fuel was then again heaped around till her remains were reduced to ashes. It was afterwards told that the executioner was heard to say that her heart would not consume, and that he feared that he was damned, for he had burned a holy woman. An Englishman, who had placed a faggot to the pile, cried out that he repented bitterly, and that he had seen a dove come out of the flames. It was popularly believed that the holy maid had not really died, and a few years after a woman pretending to be Joan of Arc again come to life, went about Germany and France (from 1436 to 1440), and for a time deceived many, among others, some people of Orleans and two of Joan's brothers. She was married to a knight, Robert des Harmoises.

* Guillelmus Manchon dixit quod tunc erat iuduta indumento virili, atque conquerebatur quod non audebat se exuere, formidans ne de nocte ipsi custodes sibi inferrent aliquam violentiam atque semel aut bis conquesta fuit dicto episcopo Belvacensi, Subinquisitori, et magistro Nicolao Loyselleur, quod alter dictorum custodum voluerat eam violare; quibus Anglicis propterea, a domino de Warvik juxta relationem ipsorum episcopi, inquisitoris et Loyselleur, minæ magnæ illatæ sunt, si ulterius id attentaro præsumerent; et de novo duo alii custodes commissi.—Tome ii., p. 298. Frater Bardinus de Petra ab eadem Johanna audivit, fuit per unum magnæ auctoritatis tentata de violentia; propter quod, ut illa esset agilior ad resistendum, dixit se habitum virilem, qui in carcere fuerat juxta eam caute dimissus, resumpsisse.—Tome ii., p. 305,

The imposture was detected by the King, Charles VII. She afterwards led an abandoned life, and came to a miserable end.

The cold-hearted councillors of that King, who had done little or nothing to rescue Joan, soon found the want of the powerful arm which had been so useful to their cause, and even tried a substitute. They got hold of a shepherd-lad named William le Bergier or Pastourel, who, as the Chancellor of France wrote, "said neither more nor less than the maid had done, and who was commanded by God to go with the King's people." In an incursion which the French made into Normandy (August, 1431), the shepherd fell into the hands of the English after a fierce combat, in which the Sire de Saintrailles was also taken. He was brought before the boy King Henry VI., tightly tied with cords, and then, it is said, thrown into the Seine. Like St. Francis he showed five blood-marks on the feet, hands, and side. It is worthy of notice that the chroniclers who mention this unfortunate youth, call him insane, which no one said of Joan of Arc.

Twenty-five years after, when the French had regained Normandy, the whole proceedings against the heroine formed the subject of a careful inquiry. Evidence was taken at Domremy, Toul, Vaucouleurs, Poictiers, Orleans, Paris, and Rouen. The old condemnation was formally annulled by the ecclesiastical courts, with the sanction of the Pope, and Joan's memory cleared of the imputation of being a witch, a dreadful one in those days, which blasted all it touched. It is from the record of her trial and rehabilitation that we have gathered so many details.

It seems strange that Joan was never canonized as a saint, as some French writers have proposed. She appeared in a just cause to save a great nation from ruin. Her claims to miraculous aid may well appear credible to those who are willing to admit the supernatural in history, and her fitness to play the difficult part assumed by her might rather be deemed the proof of the selection of a higher wisdom than her own, than the result of the random excitations of nervous disease. How could God suffer an innocent girl to be deceived by the form of the messengers whom He had sent of old? Nevertheless it would be easy to show that Joan's voices several times deceived her; for example, she said that she was destined to set free the Duke of Orleans from his English captivity, and that she would lead Charles VII. in triumph into Paris. There is reason to believe that she gave out that the fatal sally at Compiègne would succeed. She also said that the

voices told her that she would see the King of England, and that she would be delivered from the hands of her enemies. It must be kept in mind that she was no older than twenty when she died, and that her career only lasted about two years, one-half of which was spent in prison. Had she lived longer it is likely that the course of events would have indicated more clearly the character of her delusions. Would her hallucinations have ceased to follow her, and her mind have subsided from the state of exaltation? Or would she have gone on in her claims of having supernatural communication with Heaven?

Brierre de Boismont has shown that hallucinations are quite compatible with sanity, and even speaks about physiological hallucinations; but though men may have hallucinations without their reason being overset, we hold with Dr. Hagen* that a hallucination is always something pathological. By deranging our sensations, the channel of all our knowledge of the outer world and of our intercourse with other minds, hallucinations must ever place the reason in danger of being overthrown. Joan wrote a letter to the Hussites threatening to give up even the war against the English, to visit these heretics with an avenging arm. It is clear any one making such pretensions at the present time would get her case considered by doctors of medicine instead of doctors of divinity; nor need it be said what would be their decision. But she lived in credulous times, when no one doubted that men frequently communicated with spirits. The only question was whether they were good or bad spirits. Joan believed they were good spirits, because they never tempted her to evil, and urged her to free her country, which she and those around her believed to be a good work. It was seriously discussed by a learned doctor of Germany whether Joan was really a woman at all, and not a python, who would disappear or turn into a serpent, like the lady in Keats' poem of Lamia. When the whole age was thus deluded, there is little wonder that Joan herself went with the current. The great difficulty, of course, is to give a rational explanation of her early delusions, which seem to be connected with hallucinations of hearing and sight. I cannot say that I have any clear explanation to give, and would not like to prolong this paper beyond the limits of your patience. I shall therefore defer any further statement of my own surmises thinking it better to have presented to you the facts in the career of Joan of Arc, which it is of importance that you, as psychologists, should know in order to form an opinion.

‡ Studien auf dem Gebiete der Aerztlichen Seelenkunde, von Dr. Friedrich Wilhelm Hagen. Erlangen, 1870. Die Jungfrau von Orleans, p. 107.

Miliary Sclerosis. By J. W. Plaxton, M.D., Medical Superintendent of the Asylum for the Insane, Colombo, Ceylon.

Is Miliary Sclerosis a fore-death change? Most of us have believed it so: many of us doubt, myself amongst the many. As to the grounds of my unbelief, they are briefly these:—

1st. The rarity of its absence in brains examined by me since I entered the tropics.

2nd. No one has ventured to say he could link this change with phenomena seen in the living.

It was a relief to one in this doubting state to hear that in the Pathological Room of the West Riding Asylum the same doubts had entered.

Not only so, but one of the men best able to guide us, we of the ruck, was to investigate the matter. (See Dr. McDowall's paper in the "Journal of Mental Science," January, 1880.)

Time passed, and no sign was made—we know with good reason.

With scepticism strengthened, and with inquisitiveness whetted by delay, in April last, a season of comparative leisure, I overhauled my bottles.

I found I had pieces of 22 brains.

Brains of insane dying in the lunatic asylum ...	20
Presumed normal brain	1
Brain of bat (Pteropus)	1

I submitted them all to the microscope, with this result:—

Miliary Sclerosis absent	1
Miliary Sclerosis present	21

It was present in the normal brain, and present in the bat's brain.

Casting about for a reason for its absence in the one brain, the note I had made that no spirit was used in hardening in this single instance seemed a clue worth following. My usual custom was to take a bottle of spirit with me to the post-mortem room, and then and there place the desired piece of brain in it as soon as removed from the body. In this case my custom had not been followed, and I had made a note of it.

As to the other 21 brains, I have written a note of its use in eight human brains, and I know it was used with the bat's

brain, making nine brains with which its use was certain. The hardening was in all cases completed by some chrome fluid.

It remained for me to test the hypothesis that the use of spirit influenced the production of Miliary Sclerosis.

To this end, brains of four patients dying here were used.

Two portions were taken of each brain; one portion placed at once in a solution of bichromate of potass, one portion placed at once in spirit.

I have just completed the examination of these brains, the result being:—

Spirit portions—Present in	3
Spirit portions—Absent in...	1
Other portions—Present in	0
Other portions—Absent in	4

I have also examined an additional two brains which had passed through spirit. Miliary Sclerosis was present in both.

The outcome of my inquiry stands thus:—

Individual brains examined	28
Brain passed through spirit—	
Certainly ... 15 } Total	27
Probably ... 12 }	
No spirit used in	5

Where no spirit was used—Miliary Sclerosis absent in all.

Where spirit was used—Miliary Sclerosis absent once, present 26 times.

The number of cases is too small, and the conditioning of the cases too imperfect, to warrant any certainty, but, to say the least, they are suggestive of this, that spirit determines the appearance of Miliary Sclerosis.

In the "Journal of Mental Science," July, 1882, mention is made of Dr. Savage's paper on this same subject of spirit-made changes in nervous matter. His experience would seem to march with my own, but unfortunately I have not seen his paper, nor one by Spitzka previously advocating the same view.

Dr. Batty Tuke, in reply, as it were, shows that this is no new thing, having had to lay aside as valueless a large number of slides in which, working with spirit, deceitful appearances were present. These appearances were not found when his method was changed.

The changed method is, if I mistake not, to limit immersion in spirit to 24 hours, and then harden it in some chrome fluid.

Dr. Mitchell strengthens Dr. Batty Tuke's case by the

observation that Miliary Sclerosis is less recognisable after the prolonged action of spirit.

The inferences from these observations just quoted are :—

First. Prolonged immersion in spirit causes the appearance of, at least, a pseudo-Miliary Sclerosis in nervous tissue.

Secondly. It veils true Miliary Sclerosis.

Thirdly. Twenty-four hours is not a "prolonged" immersion.

How do my cases tell for or against these propositions? Conclusively as to none, for all but one of my brains were in spirit 48 hours or more.

The exception was in spirit three hours only. In this case the *sectio cadaveris* was made five hours after death; the part to be preserved was placed in spirit six hours after death, was in spirit three hours, was hardened in bichromate of potass and chromic acid for ten weeks, and was nine months in spirit before examined for the above purpose.

Unless it be argued that the Miliary Sclerotic change undeniably present was the product of the second immersion in spirit, I, in the light of my other cases, am driven to conclude—

Either (1) a shorter immersion than 24 hours will give rise to the change, miliary or deceptive, whichever it may be.

Or (2) the change is due not to spirit alone, but to spirit with some influencing accessory.

The accessory which at once puts itself forward is heat, my work-room the year round, night or day, rarely rising above 85° F., and as rarely sinking below 75° F.

If the argument from microscopic examination is unconvincing as to its origin in point of time, what is the argument from the living? It has been seen oftenest in cases in which during life the nervous system has suffered. True, but these are also the cases in which the brain has oftenest been examined.

Is it recognisable as (during life) being connected with any train of symptoms?

Is it the unvarying accompaniment of nervous disease?

I think not. Dr. Long Fox, quoting Dr. Kesteven, gives a list of 21 diseases, all diseases in which grave disturbance of nerve function was present, but some, certainly, in which it must have been present as a bye product.

It can scarce be said to have been the cause of idiocy, yet, in the case quoted, Dr. Kesteven counted 25,000 granules of Miliary Sclerosis in the square inch.

If not the cause of idiocy, we must either suppose it did or did not cause recognisable disturbance of function during life.

It can hardly be doubted that such a dislocation, to say nothing of destruction, of nerve elements as the intrusion of 25,000 foci of Miliary Sclerosis per square inch of surface would cause, could exist without some manifestation other than idiocy to mark its presence; yet no note is made of such.

Again, quoting Dr. Fox:—"It can be seen to exist in a large number of cases in which the mental faculties have scarcely suffered at all—in spinal diseases not at all."

Yet, again, I find it present in the brain of a man dying without trace of brain defect, and I find it present in the brain of a bat shot by myself, whose brain was lodged in spirit two hours after death. True in these cases the brains lay long in spirit—the man's 49 hours, the bat's some weeks—but then the same change is present in a brain three hours only in spirit, and which is safe in chrome fluid nine hours after death. This brain, though, was that of an insane patient.

To conclude. From clinical observation we have little or no reason to believe this change due to disease.

From the microscopic examination of brain and the observed effect of spirit, we are certain that deceptive changes are brought about by the use of spirit.

I myself would go farther, and say *there is strong reason for doubting the reality of Miliary Sclerosis as anything but the effect of post-mortem change, however it may be induced.*

I have assumed that the changes I have seen are really what I believe them to be, the Miliary Sclerosis of Dr. Batty Tuke, or, as others prefer to say, Miliary Degeneration; but even if they be but the simulacrum of the disease, I shall not have ventured on unaccustomed ground in vain, if he will quieten our mental unrest by showing us the simulacrum side by side with the true.

Forewarned, we shall then be forearmed.

I should like to watch on the stage of the microscope the effect of spirit, at differing periods, on a section of fresh brain, but unfortunately in the tropics the freezing of brain would be a difficult matter.

I would like to suggest as matter for proof the effect of different strengths of spirit and the correspondence or not of the effect of methyl or ethyl alcohol.

I have not found the change influenced by moderately long keeping of the brain. The same brain kept until decomposition had undoubtedly begun gave almost identical result as when it was transferred early to spirit.

The Data of Alienism. By Charles Mercier, M.B. (Lond.), F.R.C.S.

III.

The Organism—The Physique.*—*Continued.*

The study of the Laws of Heredity, as conducted in the preceding papers, has resulted in a definite conclusion, it is true, but in a conclusion as to tendencies only; and whatever facts we may ascertain in the family history of a patient, however numerous and however damning they may be, they can never warrant us in inferring anything whatever with respect to that patient, beyond the existence of a tendency in one direction or another. To ascertain how far, and in what proportion, these tendencies, in so far as they concern the Structure of the Organism, have become actualities, recourse must be had to the study of the Physique, which is the outcome of the combinations, and conflicts of the laws of inheritance. Or, in other words, the Physique is the form which the organism has assumed under the action of the developmental forces.

The assumption of a certain form by an organism implies that development—the resultant of the developmental forces—has proceeded in a certain direction for a certain distance. It is obvious that if development had taken another direction, or proceeded further or not so far, the form of the organism would have been different; and it is obvious, moreover, that these two are the sole elements that determine the form of the organism. They therefore, form a natural basis, and indicate a natural division, of our investigations into the Physique. It

* It has been represented to me by several friendly critics that, whereas in the paper on the Nature of Insanity, I had promised to follow on with schemes for the investigation of Mind and Conduct, it has, in fact, been succeeded by papers on a totally different subject. To this impeachment I must plead guilty, and I have only to say in extenuation, that the promise referred to resulted from a very inadequate estimate of the magnitude and difficulty of the task. Further consideration convinced me that such schemes, involving, as they will, an entirely new departure in the science, would have a very frail chance of acceptance unless they were preceded by a preparatory treatment of the simpler aspects of the subject, so arranged as to lead up to the more difficult regions that lie beyond. Furthermore, closer examination showed that in the science of the normal Mind large gaps existed, and these defects in the foundation had first to be made good before any superstructure could be raised. The promised schemes are, however, in course of preparation, and a preliminary contribution to the first of them appears in the current number of "Mind."

must be borne in mind, however, that to follow the process of development is no part of our task. All that we have here to do is to estimate its results, taking these results, for the sake of convenience, first in one aspect, and then in the other.

The direction in which development has proceeded determines those features, so preponderant in the structure of the organism, that characterise the Race, the Temperament, and, where it is present, the Diathesis; together with most of the still more special characters which are proper to the individual, and serve to distinguish him from others.

The height that development has reached is measured by Reversion to characters that have been lost by the majority of the race; by Survival in a well-marked form of characters out of which the race is in process of emerging; by Persistence to adult age of characters proper to embryonic life, infancy, or childhood; and by the degree in which those characters are assumed that appear at the highest tide of development.

The Race and Nationality.—Few better instances could be given of the fact, so frequently occurring and so persistently ignored, that speculative questions of apparently the most visionary character unexpectedly turn out to have a close and powerful bearing upon practice, than this question of Race considered in connection with Insanity. In the treatment of the insane, the one question whose importance transcends all others to an immeasurable degree, is the use or non-use of restraint; and during the past year, the use of restraint has been justified by an American alienist, on the ground that the type of insanity that occurs among those of American race is so different from that occurring among the English, as to necessitate a radically different mode of treatment. Alienists on this side of the Atlantic would approach such a question in a very sceptical attitude, but the fact that it has been raised shows the necessity for some reference to race among the data of alienism; and, should it be affirmatively established, it will necessitate the estimation of racial influence in every case of insanity that we have to treat.

The estimation of Race and of Nation, while they are, for the sake of brevity and convenience, grouped together, are yet in reality distinct problems. Every modern civilised nation has been formed by the amalgamation, at various times and in various proportions, of many distinct races; and the same race may not only have been so distributed as to become a factor in the composition of several distinct nations, widely different in locality and character; but, when it remains pure, it may

become so modified as to present a widely different physique, as we find in the Scotch and Irish Celts. The modern English nation is made up of grafts, more or less extensive, from almost every race of the Aryan stock; and most of these grafts have become so intimately blended together, that their distinctive traits can be recognised, if at all, only as contributing some modification to the general result. The first inhabitants of these islands of whom we have any written record were Celts, but who shall say how many waves of immigration had poured into this country between the times of the cave-dwellers in the age of Stone, and those of our earliest historical ancestors? or who shall determine how much of the blood of those humble chippers of flint runs in the veins of our statesmen and philosophers? This much, at least, is known, that for two thousand years, that irresistible march of Aryan man towards the setting sun, which has continued throughout an immeasurable past in the Old World, and which still continues in full vigour in the New, has maintained an influx of new blood into this country, at first in isolated waves of conquest, and ever since in a steady flow of peaceful immigration, that more than justifies the dictum of Defoe:—

> A true-born Englishman's a contradiction,
> In speech an irony, in fact a fiction.

That these heterogeneous elements have become to some extent fused into uniformity of character, is shown by the fact that among foreigners, even so closely allied to us as the Germans and French, an Englishman can usually be distinguished by his facial characters alone; but that the fusion is but partial and incomplete, is indicated by the ease and certainty with which various types of the original races can still be distinguished within the nation. Thus, from the west of Ireland, from the mountains of Wales, and from the Highlands of Scotland we get Celts of pure descent, though of divergent types, all of whom retain, in a marked degree, the mental and social peculiarities, and some of the physical characteristics, that distinguished their earliest historical ancestors. In the rural districts of East Anglia we find people who are not only peculiar in physique and dialect, but who bear in many instances the very names that were borne by their Anglian forefathers long before the Heptarchy; and the Jews we have always with us. Besides these scattered remnants of the component races, there are other distinctions which mark off sections of our population—distinctions that are partly vestigial

of the component races, but to a large extent have originated within the nation and in the historical era. It is manifest that in pre-railway times, when the population, and especially the rural population, was of necessity very stationary, and migration to any important extent was unknown, the inhabitants of any one district must have been for generations subject to a uniform set of environmental conditions, and must for generations have intermarried. In this way there must have occurred in each secluded district, a gradual assimilation of the inhabitants of this district to one another, and a gradual differentiation of them from the inhabitants of surrounding districts; and thus would be established a distinct sub-variety of man, which would only need a continuance of the favouring conditions to develop into a distinct variety and race. That the first part of this process has actually taken place is strongly indicated by the evidence of language. In tracing the history of the races of man, no evidence is so much relied on, or regarded as less impeachable, than that of language; and if this evidence is reliable as a proof of kinship, equally reliable is it as an indication of divergence. Moreover, as it is trustworthy in quality, so in quantity it is abundant. The dialect of Lancashire is almost unintelligible to a Londoner; to a Kentish peasant it would be quite unintelligible. The Yorkshire dialect, while allied to that of Lancashire, is not the same. In East Anglia not only are the vowel sounds different from the common, not only is there a copious vocabulary of local terms, but there is a cadence rising at the end of the sentence which is different from the Scotch cadence, and is unknown elsewhere. The Midlands have their own dialect. In Dorset and Devon not only is the dialect widely different from pure English, but small localities have their peculiarities of pronunciation, by which the natives can recognise the district, and even the village, from which the speaker comes.

Hence it appears, that while it would be indeed an idle task to attempt in this country, and at this stage in the history of the world, to disentangle the racial kinship of any individual belonging to the bulk of our population, and especially of our urban population; yet not very unfrequently we are called upon to treat an individual of presumably or ascertainably pure race, and in such a case it would be folly to neglect any indication of his mental and ethical tendencies.* The bearing of racial

* The formation of local sub-varieties of man, to which reference has been made, when collocated with the conclusions deduced in the last paper from the second law of Inheritance, yield instructive results. One effect of that

considerations upon practice, has already been illustrated by the plea of American alienists for the use of restraint, and other examples readily suggest themselves. Thus, the turbulent and pugnacious spirit of the Irish Celt, which exhibits itself so constantly in their history, which impels such a disproportionately large number of them to enter the army, which appears in their passion for litigation, and which has been so prominently displayed on a large scale in the last few years in political movements, materially helps us to understand why they are among the noisiest and most violent of the inmates of our asylums; and their hereditary aversion to continuous employment, emerging into greater prominence and strength in insanity, as underlying racial qualities are prone to do, deprives us of our chief remedial agent, and necessarily renders prognosis less favourable in them.

The Temperament.—In the ease and certainty with which a foreigner in a country is recognised as such by his aspect only, we see how conspicuous and how constant are the uniformities of structure that depend on racial and national kinship; and in the ease with which each member of a race is identified from the rest, we see the immense diversity that exists superficial to the national resemblance. Thus it appears that there are, in the characters distinctive of a race, certain underlying uniformities of structure that remain constant throughout all the individuals of that race, and show through the wide diversity that exists in more superficial characters. Similarly, in the features in which the members of a family resemble one another, there is a smaller group of uniformities of structure of a less fundamental character, which exist throughout that family, and yet leave a sufficient amount of difference to enable the several members to be identified from one another. The similarity in the latter case rises to a higher level, and submerges many of the differences that exist between the several families in a race. In both cases, however, the similarities follow approximately the lines of kin-

almost sudden spread of railways over the country that took place 40 years ago, has been to cause a flux of the whole population, that must have tended powerfully to break up all such circumscribed groups; and the free intermarriage of the different local sub-varieties will, if those conclusions are correct, have tended to the production of a generation of higher average intelligence and more prone to insanity. That the general standard of intelligence is higher than it was 40 years ago, I think everyone will admit; and the evidence of an increase in the proportionate amount of insanity is so strong, that frequent efforts are made to explain it away. Without attributing too much importance to the influence of crossing in producing these results, I think it may fairly be considered a contributory cause.

ship, and, like a fluid between two surfaces, rise to higher levels as these become closer. But there is a third and a fourth set of uniformities that, while yielding to a certain extent to the influence of race and family, are yet largely independent of them; and often appearing sporadically in individuals scattered here and there, connect them together, by well marked similarities of configuration and function, into groups that intersect in an irregular and seemingly erratic way the groups formed by blood relationship. These are the characters which form the Temperament and Diathesis. Underlying and leaving unaffected the differences by which individuals, families, and races are distinguished, the characters of Temperament yet give rise to resemblances so well marked and so important, that we are enabled by means of them to group together at a glance men of different nations even, according to the Temperament they exhibit; and on the other hand to trace clear distinctions between individuals of the same family. Regard being had to the minor laws of inheritance, to the influence of reversion and prepotence, the fact that members of the same family should exhibit wide differences of Temperament is in no way remarkable; but the converse fact—the persistent reappearance in their pure form of certain definite types of structure and function, is at first sight unaccountable, and merits far more attention than it has yet received. In spite of the intermixture of parental qualities in offspring—an intermixture that must become more intimate in each successive generation, and must continually tend to reduce original diversities to a uniform average;—in spite of this powerful levelling influence, there still recur the same special groups of structural and functional qualities;—groups so peculiar that one can identify them with ease, and record the identification in a name—and these named groups of characters do not run in one family or one race—have no continuity of succession, but crop out here and there, so that the same type of frame, face, feature, disposition, and mind shall be found in individuals who are virtually unrelated to each other—individuals belonging to different nations, peoples, and languages, and whose lives are divided, it may be, by hundreds of years.

Although the consideration of the Temperament falls within the province of the Biologist rather than that of the Alienist, yet, as it affords an important datum to the latter, and as it has, during the present generation, attracted a surprisingly small amount of attention, a certain space may be fairly devoted to it here.

As commonly enumerated by the older writers, the Temperaments which are the most clearly distinguishable, and, with their combinations or transition forms, the most widely prevalent, are the Sanguineous, the Nervous, and the Lymphatic. To these I would add a fourth, which, as it is the physiological counterpart of the Fibroid Diathesis of Dr. Sutton, I would call the Fibrous Temperament.

Persons of Sanguineous Temperament are of variable stature, but even when tall are rather slight than bulky; their bones are slight, and their extremities small. They are of fair complexion, the hair being usually light in colour, and, though often dark, rarely black, and is fine, luxuriant, and curly. The nails are long and convex in both directions. The skin is thin, delicate and fair. The head is small and round, the face oval in contour, and the features refined. The forehead is narrow, and in the best forms high; the brows are arched; eyes large (in the conventional sense), and the sight is often short. The nose is straight and rather short, not thin. The mouth is small, and the lips full. The upper lip, by which is meant the space from the nose to the mouth, is of medium length, and is concave; similarly the lower lip, from the chin to the mouth, is of moderate length, and is yet more deeply concave. Thus the red margins of the lips are well everted, and, viewed from the front, their outline is strongly curved—the *cupidon* lip. The jaws are small and the teeth large, so that in the inferior forms the latter often overlap one another. The chin is rounded. Persons of this temperament are very active; their movements are rapid, neat, precise, graceful, easily evoked; but they are wanting in force. They have great energy, and work with persistence, but they lack endurance; they are soon fatigued. Consonantly with this, they are readily influenced by their surroundings; easily susceptible to the influence of alcohol. Usually of a buoyant disposition, they are easily excited, elated and depressed; sensitive to the opinion of others. They are enthusiastic; feel keenly, but not very lastingly; and feeling finds ready and forcible expression, but is less apt to permanently influence conduct. They have bad memories; are highly imaginative; in thought ready, prone to abstraction and generalisation; in the best forms original in a high degree; often witty and subtle, but rarely complex. In youth they are precocious; they age early, and, as they grow old, they are apt to get bald, stout, florid, and often lethargic; but their small features and florid complexions often give them a boyish look in middle age. This is pre-

eminently the poetic temperament; conspicuous examples of its highest development being seen in Shakespere, Byron, Shelley, and Mozart.

The Fibrous Temperament differs widely from the preceding. In it the bony frame is large; the stature is variable, but the frame is always bulky. The extremities, too, are large; the hair is coarse and thick; the nails flat, and often short. The head is large and massive. The face is square or oblong in contour, and the features large. The forehead is rather broad than high, though often both; the brows are thick and horizontal or inclined outward and upward; the eyes of medium size and often deep set. The nose is, in the best forms, long and aquiline, and often thicker and more prominent at the bridge. In inferior forms it has the shape which is called in women *retroussée* or tip-tilted, in men pug or snub. The upper lip is long, often very long, straight and vertical. In exaggerated forms it is convex, but in the type it is straight. Similarly, the lower lip, from the chin to the lower margin of the mouth, is long and straight, with, it may be, a slight concavity at the upper part. The red margin of the lips is thin and little everted. Viewed from the front the mouth is wide, and its curves but slightly pronounced. The lines leading down from its corners appear early in life. The jaw is square and massive, the teeth regular and enduring. In old age they may be seen worn down to mere stumps, but without a trace of decay. The voice is loud, and often harsh. Such men are active, but their activity is of a special kind. Their movements are not rapid; are often clumsy, and wanting in precision; but they are powerful. They are capable of immense exertion; they have great endurance of fatigue and privation; they work arduously and long, with little rest. They are very tenacious, and, once attracted by an object, will devote a disproportionate amount of time and trouble to it rather than relinquish the pursuit. They are but little influenced by their surroundings; bear with equanimity terrible responsibilities; alcohol has little effect upon them. Their emotions are not easily stirred, but they feel deeply and lastingly. They are undemonstrative, are little given to the expression of feeling, but exhibit its influence in permanent alteration of conduct. Hence they are of equable temper, seldom excited. They have great force of character and strength of will. In intellect they are essentially inductive. They have good memories; they revel in complexity of thought; are not given to generalize—are apt to look askance

at generalizations; abhor abstractions, and love to grapple with the concrete affairs of life. They live long, and are but little subject to disease; maintain their activity to the end of life; they are late in growing grey, but they soon become wrinkled, and their skin falls into deep folds below the eyes and around the mouth. To such men fall the prizes of life. They are the men of action, the successful men. Excellent examples of this temperament may be seen among the foremost men in every walk of life—at the head of great houses of business, managers of railways, successful generals, prominent statesmen, dignitaries of the Church, leading financiers, and perhaps the purest examples have been seen on the judicial bench and the woolsack.

Persons of Nervous Temperament are often of small stature, and as a rule of dark complexion, sallow skin, and spare habit. The head is rather small, long and narrow. The forehead narrow and often low. The eyes are deeply set, the nose long, thin, sharply cut, aquiline and pointed. The upper lip is short, in well marked forms extremely short; the mouth is small, the red margin of the lips is thin, and but slightly curved. The angle of the jaw is oblique, and the chin pointed. The teeth are good, but small, so that there are often spaces between them. In habits they are restlessly active; they are apt to disturb those around them by their eager and incessant activity, an activity which does not readily tire, but displays itself more in rapidity than in force of movement. They display intense eagerness in pursuit, but they turn their pursuit from one object to another with startling suddenness. This quality, which displays itself in the lower forms as fickleness, becomes, in the higher forms, versatility. They have little patience—little persistence, but they possess great nimbleness both of body and mind. They are greatly influenced by their surroundings, and the effect passes away rapidly as the circumstances alter. They easily identify themselves with the ideas and feelings of other people, and thus, in passing from the influence of one person or group of persons to that of another, they may appear in totally different characters; but not on that account are they untruthful; the state of mind is genuine while it lasts. Their feelings are intense but transient, are expressed with strong, emphatic, and even exaggerated demonstration, but have little permanent influence on conduct. In thought they are quick. Ready of apprehension, they readily acquire knowledge, and readily forget. They have little initiative force, little power of impressing

their will on other people, and often live under the domination of some stronger mind. Like fire, they are good servants and bad masters. Dryden's description of the Duke of Buckingham is, as far as conduct is concerned, the picture of a man of Nervous Temperament.

The Lymphatic Temperament, which is rare in the pure form, and may be regarded as a variety of the Sanguineous, is in many respects antithetical to the preceding. In persons of this Temperament the bones are small, but the habit is bulky. The complexion is fair—often very fair—and the hair light, fine, and luxurious, but soon lost. The head is round and small; the features are like those of the Sanguineous Temperament, but the face is a shorter oval, and as life advances becomes pear-shaped from the increase of the jowl. The skin is pasty, the limbs large, and there is a tendency to fat. The movements are sluggish and have little force, but there may be much passive endurance. Surroundings are slow to influence persons of this temperament. Feelings are of moderate intensity, but very enduring, and largely influence conduct. Their expression is slow and slight. The mind is slow to apprehend, but tenacious to retain; thought is rarely either complex or profound. Since lymphatic persons rarely rise into prominence it is not easy to find a good example among well-known men. The character of old Joe Willett, in "Barnaby Rudge," is a caricature of the type. Ethelred the Unready was doubtless of this Temperament, and George III. certainly was so.

While pure, or nearly pure, Temperaments answering to the above descriptions are, save the last, far from uncommon, it is nevertheless undoubtedly true that the majority of human beings exhibit characters intermediate between some two or more of them; but since the mental qualities and the forms of conduct appear to be present in proportions generally corresponding with those of the facial characters, the study of temperament is not less helpful in these mixed forms than in the pure types; and with temperaments as with races, the best individuals are often the results of a cross. Thus the greatest men of action have been those in whom a strong Fibrous Temperament was dashed with a tinge of the Nervous. Such men were Julius Cæsar and Napoleon Bonaparte.

To what forms of insanity are prone those who exhibit the several Temperaments, is a question which is certainly very interesting, but which, so far as I know, has never been investigated. As far as my own observations go—and, having regard to their limited number, I would not attach much im-

portance to them—general paralytics are very often of Fibrous Temperament; melancholiacs but rarely. On the other hand mania is common among them all. The Nervous Temperament not unfrequently becomes exaggerated into mania, and the Lymphatic Temperament easily subsides into dementia. Acute delirious mania rarely occurs in those of Fibroid Temperament.

When we inquire into the significance of the Temperaments, we are confronted with two distinct problems. We have first to explain how it is that like qualities appear sporadically in unrelated individuals; and secondly, we have to explain how it is that qualities which have no discernible bond of union with one another, appear together, and are together absent, with a frequency which forbids us to suppose that their connexion is accidental. Although these are, both of them, problems in biology, and an exhaustive treatment of them is not required here, yet since they nearly concern the alienist in other connexions besides this one, it will not be out of place to show that there are, in the region of biology, many similar facts, which, if they do not explain these occurrences, show in what direction an explanation is to be sought.

The appearance of similar characters in individuals between whom there is, in respect to that character, no blood relationship, is a frequent occurrence; and many of the qualities so appearing are of a far more striking and exceptional character, and occur in individuals very far more distant of kin, than any instance of temperament can show. In the human race, hare-lip, cleft palate, deaf mutism, and supernumerary fingers, appear in this sporadic manner; and if we include, as we are bound to do, lower organisms in our survey, the instances become embarrassingly numerous. A small but notorious instance is presented by the similarity in marking and colouring between the zebra and the tiger. Although these two animals have a common ancestry with respect to the main features of vertebrate and mammalian structure, yet, with respect to marking and colouring, there is no such blood relationship. Neither is there any common circumstance in the habitat or mode of life to which the similarity could be attributed. And if the characters are referred, as probably they may be correctly referred, to sexual selection, the difficulty is but postponed for a single stage; for we then have to account for the similarity of taste, and of nervous organization underlying taste, which leads two animals so diverse to prefer characters so similar. A general white colour, with dark tips to the ears and dark feet, characterises certain breeds of rabbits and certain breeds of cattle.

When dogs are in colour black and tan, the colours often have a precisely similar distribution in widely different breeds. In several distinct breeds of fowls, and also in pigeons, there occur varieties having feathered legs. The remarkable modification of feather known as "frizzling" occurs independently in fowls and in pigeons. Albinism is a striking instance of this class of occurrences. Like the temperaments, it appears sporadically in the most erratic manner, and without assignable cause. It appears in identical form in widely different orders and even classes of animals; among birds as well as among mammals. Like the temperaments, it is sometimes hereditary. Like them its physical peculiarities are accompanied by peculiarities of mind and of conduct equally distinctive and constant. Like them, it is not the expression of any direct conformity to environmental circumstances. A still more striking example is seen in the well-known modification of structure that is seen in bull-dogs. The short and broad forehead, the prominent eyes, the upturned jaws, the retracted lip, the protruding under jaw, the wide nostrils, the short and bowed fore legs, all appear in almost identical form in the pug dog. In this case it may be said, although there does not appear to be any evidence on the point, but it may be plausibly advanced, that the similarity is due to direct descent or close collateral relationship. But what are we to say of a breed of cattle—the niata cattle of La Plata—which exhibit a closely similar modification of structure? In these cattle the forehead is described as short and broad, the eyes project outward, both jaws are strongly curved upward, the lower jaw projects beyond the upper, the upper lip is much drawn back, exposing the teeth, and the nostrils are wide apart. This variation of form appeared suddenly *de novo,* in historic times—certainly since the 16th century. A similar conformation existed, however, in the Sivatherium, a ruminant which existed in India, and was extinct long before the niata breed appeared. The characters of the improved breeds of pigs are alterations in the same direction, and, more remarkable still, an essentially similar conformation of head marks off a variety of the common cod, which is called by fishermen the bull-dog cod. I have also had under care a patient who exhibited such a markedly similar conformation of jaws and lips, such prominent eyes and wide nostrils, as to gain the nickname of "the bull-dog."

In the vegetable kingdom analogous occurrences are found to obtain. Thus, six or more varieties of the peach have at different times, and in different countries, produced nectarine

fruit; and each of the varieties of nectarine so produced have undergone parallel variations. Several varieties of cherries, of similarly distinct relationship, have produced fruit of the same new shape and ripening at the same new period. The dark colour that gives its name to the copper beech appears occasionally in the leaves of other trees, as the hazel and the barberry. The weeping habit breaks out with apparent caprice alike in the willow, the birch, the ash, the elm, the yew, the peach, the oak, and the thorn. Many more facts could be cited, but these are enough to show how often like qualities occur in organisms, that in respect to those qualities have no kinship.

The instances of the tendency of characters to appear in groups when they appear at all, and, for the characters thus grouped to undergo concomitant variation, are even more abundant. In some cases we can trace an obscure connection between the different qualities that vary concomitantly, but in others no discernible community of origin exists. That in cats, white fur and blue eyes almost invariably co-exist with deafness; and that, in certain cases, Mr. Darwin has noticed the deafness to subside concomitantly with the occurrence of a change of colour in the eyes, is, if not explainable, yet dimly intelligible, when we remember that the skin and the special sense organs are developed from the same layer of the blastoderm. Similarly, the inactivity and low intelligence so frequently seen in albinoes remind us that the brain has its origin in an involution of the external layer which forms the skin; and suggest that an error occurring very early in development may easily affect both; but in other groups of characters we can trace no such connecting links. Thus hare-lip and cleft palate comparatively often co-exist, not only with one another, which is explicable, but with supernumerary fingers, and with bifid uterus, which is inexplicable. That albinism in peafowl should always be accompanied by diminished size, might be looked on as a part or an additional manifestation of the defect in the organisation, were it not that other albino animals, *e.g.*, moles, are larger than the common kind. That the largest terrestrial mammals, the largest birds, and the largest insects are vegetable feeders, may perhaps be accounted for by the less concentrated food requiring a more bulky digestive system, and this again necessitating a larger frame; and that all horned mammals are vegetable feeders may be explained by the possibility of a descent from a common ancestor; but what explanation can we give of the fact that the large

vegetable feeders, solely among mammals and birds, and by far the most copiously among insects, are decorated with horns on and about the head? In fowls, frizzled feathers and a black periosteum always occur together. In man, disease of the suprarenal capsules and bronzing of the skin occur together. When, in any breed of animals, a variation occurs in the length of the legs, a concomitant variation occurs in the length of the head. Thus horses, dogs, pigs, rabbits, and pigeons that have long legs have also long heads, and *vice-versâ*. The most remarkable, and, perhaps from our point of view, the most important of these concomitant variations occurs in regard to colour. If a black and tan dog has a tan patch over the eye its feet are tan coloured. If a cat has white feet the front of the neck or chest is white. In addition to this correlation in colour of part with part, there is a most important correlation of colour with fundamental properties of constitution, which has been established unmistakably in pigs, horses, cattle, and sheep. Thus there is in Virginia a certain root which is poisonous to all pigs save those of a black colour, and these eat it with impunity, so that no pigs of any other colour are reared in that region. Another plant, in Sicily, is poisonous to white sheep, and to them alone. Horses of various colours, after eating mildewed and honeydewed vetches, have had every spot of skin bearing white hairs inflamed, the coloured parts being unaffected; and those horses which had no white about them escaped entirely. Mr. Darwin, from whose account most of the above facts are taken, gives many other remarkable instances.

These examples, to which very many more could be added, are enough to show that, when qualities exist in an organism, they often exist in groups, and are correlated to one another in a way at present inexplicable.

Hence it appears that the sporadic appearance of similar temperaments in unrelated individuals is but one instance of an occurrence which is frequent in all classes of organisms; and that the appearance in this manner of the large groups of correlated qualities which go to make up a temperament, and which have no descernible community of origin, is similarly of frequent occurrence.

The explanation of these occurrences, which is doubtless to be sought in that part of the process of Evolution which exhibits itself as Segregation, is a task for the biologist; it is enough for our purpose to show that no objection need be felt to the admission of the Temperaments among the data of alienism on

the score of their want of consonance with other natural phenomena.

Diathesis. Whereas by Temperament we understand a peculiarity of configuration, associated with certain qualities of mind and certain tendencies in conduct; by Diathesis is meant a peculiarity of tissue, which gives a bias to all the vital processes, and especially to the process of inflammation, such that this latter process tends to take a certain form and to end in a certain way. Doubtless many of the distinguishing characters of temperament depend on pecularities of tissue; and doubtless, also, some of the diatheses, *e.g.*, the Strumous, appear to be exaggerations of the quality of tissue that obtains in a certain temperament; and thus the distinction is not absolute. Nevertheless, it is broadly enough marked to be of much practical value. Being a peculiarity of tissue, the diathesis is, of course, a matter entirely within the province of the physician, and does not require a detailed consideration at the hands of the alienist; but a brief enumeration of the various forms will be of service. The accepted type of diathesis is that of Struma, which may to some extent be considered the morbid counterpart of the sanguineous temperament, since it exhibits an exaggeration of many of the peculiarities of tissue which that temperament displays. In the Strumous Diathesis the bias given to inflammation shows itself mainly in early life, and is in the direction of persistence, chronicity, and caseous change. In the Fibroid Diathesis, the bias, which does not come into prominence until middle life, is toward slow changes of tissue and an increase of the connective tissue element in the parenchyma of organs, forming in this case granular kidney, in that, fibroid phthisis, and, in another, sclerosis of brain or cord. Allied to this is the Gouty Diathesis, in which the bias of inflammation is toward the deposition of urates in the tissues; and the next Diathesis—the Rheumatic—sometimes included with the last under the head of the Arthritic Diathesis, is characterised by the tendency of inflammation to affect the joints and fasciæ, with the accompaniment of great pain, and to subside without suppuration. The Dartrous and Leprous Diatheses are marked by the peculiarity of the skin affections to which they are prone; and the Syphilitic and Cancerous Diatheses require no comment.

Persistence, Survival, and Reversion.—The determination of the Diathesis concludes the consideration of those qualities which indicate the direction taken by the development. The characters indicative of the height of development

reached, being for the most part matters of degree, are necessarily somewhat vaguely defined, and do not permit of precise limitation. Nevertheless, from a general survey of his physique, we can form an approximate estimate of the grade of organization reached by an individual, and thus obtain an important help in determining whether it corresponds with the grade of environment that he occupies. If we find that the vestiges of his remoter origin are few and slight, and that those characters which mark the highest development of his race are in him well displayed, we may at once eliminate from the consideration of his case a whole class of possible defects.

Since the successive stages of development passed through by the individual embryo are reproductions of the stages passed through by the race in its corporate history, it follows that the persistence of an embryonic state is the appearance of an ancestral state; and that Persistence, Survival, and Reversion are so closely allied that doubt may often exist as to which category a given defect belongs to. Nevertheless, since the ancestral characters are assumed by the embryo in a modified form—since although it always roughly resembles the adult form of some ancestor, the resemblance is never complete—never more than an outline sketch—it follows that characters due to persistence are usually distinguishable enough from those which indicate reversion to justify a separate record. In Persistence some part of the process of development has stopped short, while the rest has gone on to completion; and in so far as this part of the process is concerned the adult organism remains as it was in the normal embryo. But in Reversion, a portion of the process shunts off the main line of development, and runs for some distance up an old and disused track; so that, in so far as that part is concerned, the adult organism possesses a character which is never assumed by the normal embryo, but which resembles an adult ancestral form to a degree which varies with the extent to which devolopment has proceeded along the obsolete track. Reversions are the still-adhering tatters of a cast-off slough. While, therefore, the immature condition which results from a stoppage of the process of development may properly be termed Rudimentary, the reversion to an ancestral condition, which results from the development to a more complete stage of some character commonly evanescent, is not properly rudimentary, but should be termed Vestigial, a term which will include also cases of Survival. While rudiments and vestiges have a different significance, and should be distinguished in thought, yet since the distinction is

not always possible, it is better, as a matter of practical convenience, to consider them together.

In *General Configuration* the infant resembles the anthropoid apes, and differs from the adult in the following respects. The body, and especially the abdomen, are of disproportionately large size compared with the limbs. The arms are long, and the legs are short and bowed. The length of limb below the knee is conspicuously deficient. In the ideal human form, as exhibited in the best sculptures, both of ancient Greece and Egypt, and of modern days, the body is divisible into three portions of equal length by two horizontal lines, one touching the upper margin of the patella, the other at the level of the umbilicus. In the infant, on the other hand, the umbilicus is in the middle of the length of the body, and in some anthropoid apes it is even below. When, therefore, we find associated together a large body, short neck, pot belly, short bowed legs, long arms, short thumbs and short great toes, we may fairly say that the individual who exhibits this configuration is of low type, and we may begin our researches into his mental qualities at a low level.

The size of the extremities should be noted for this reason, that smallness of hands and feet means a comparatively prolonged relinquishment of manual labour in the immediate ancestry. It signifies, therefore, a comparative absence of dealings with concrete things, and the existence of leisure and opportunity for abstract thought; and hence is a guide to tendencies of mind and conduct.

The importance of indications of the height of development attained are of course greatest when they occur in the characters of the head, and to this region therefore special attention must be given. As to size, it is well known that the size of the head is no criterion of intelligence. Not only the largest heads, but the heaviest brains, on record have belonged to persons of low intelligence. The brain of a vagrant drunkard and thief weighed 67 oz.; that of an insane negro 70 oz.; the average weight of the male brain being 49½ oz. On the other hand many men of exceptionally high intelligence, *e.g.*, Raphael and Talleyrand, have had small heads; and some, *e.g.*, Byron and Shelley, have had heads much under the average size. Nor is the shape of the head any more absolute guide; for although it is as generally true that a well shaped head goes with a high degree of intelligence as that a large head does so, yet the exceptions are just as numerous and important in the one case as in the other. Many men of good intelligence have heads by

no means well proportioned, in fact asymmetrical, and every large idiot asylum can show instances of well shaped heads in persons of feeble mind. But as special forms of insanity are associated with special shapes off head, indications from this source should of course not be neglected. It is important to bear in mind the ease with which the shape of the cranium may be modified by apparently trifling causes, and the small harmful effect that such changes have upon its contents. In rabbits, so small a circumstance as the lopping off an ear, is enough to change the structure of the whole skull. The Samoans and other savage tribes alter the shape of the skull by an elaborate system of bandaging, but there is no evidence that any defect of intelligence results from this practice.

The proportion that the size of the cranium bears to that of the face is a more reliable indication of intelligence than either the size or shape of the former. In the lower vertebrata, *e.g.*, the crocodile, the proportion of the cranium to the face is inconsiderable; and, generally, the higher the grade of organization of an animal the greater does the proportion become. As we rise from the lower animals to the higher apes, from the apes to savage man, from savage to civilised, and from less intelligent to more intelligent men, the increase of proportion continues. In estimating this datum the most reliable method is to view the head in profile, and take a line from the upper border of the eyebrows through the meatus of the ear. Almost the whole of the cranium lies above this line, and almost the whole of the face proper lies below.

The connection between the configuration of the head and the amount of intelligence has occupied the attention of so many observers that it is not necessary to devote any more space to it here; and to enter upon the tendencies of mind and conduct that accompany, and are indicated by the various modifications of face and feature, would occupy more space than the meagre advantage would warrant. The general principles on which they should be studied are set forth in Mr. Darwin's book on the "Expression of the Emotions," and in Mr. Herbert Spencer's "Essay on Personal Beauty."

Marriage in Neurotic Subjects. By Geo. H. Savage, M.D., Bethlem Hospital.*

I trust that my subject will be definite enough, and of sufficient interest to create a good discussion. It is one of such vital importance to society that we should endeavour to form very well defined opinions on it.

I find one set of physicians looking with horror upon the idea of anyone marrying who is markedly neurotic, whereas another class looks to marriage to cure nervous evils. I do not entirely agree with either of these, and, though I have no intention of trimming, I shall yet have to agree in part with each.

The first thing to be done is to divide the subject, and define my terms. By "neurotic" persons, I mean those who have suffered from insanity, epilepsy, or grave hysteria, and the near blood relations of such persons. This may be considered by some to embrace too large a field, and that it would be hard to know who would be allowed to marry at all; but later I shall point out that I, for one, would not make the question of marriage or non-marriage depend solely, or even chiefly, upon the existence of neurosis in a family. I am inclined to think that if it were possible for us to select those who are to be married, and if we selected only those who are nervously stable for the parents of the next generation, the children might suffer from a want of adaptability. They might, in fact, develop from nervous *stability* into nervous *rigidity*. But it is almost folly to make too much of the advice to be given in such cases. The few phlegmatic, reasonable people who would consult the physician before they became engaged to be married are very few compared with those who, impelled by passion, would marry first, and discover their error afterwards.

In considering somewhat in detail the relationships of marriage in the neurotic subject, we shall have to deal with its bearings on the contracting parties, and its relationship to their children. I am much more frequently asked by people about to marry, who consult me, what my opinion is in reference to their children, if they should have any; and a thoughtful man or woman will be much concerned with the possible inheritance

* Read at the Quarterly Meeting of the Medico-Psychological Association, held at Bethlem Hospital, February 21, 1883.

of trouble which may be transmitted by his or her conjugal partner.

In considering the effects of marriage upon the parents, one would prefer to consider the effect of marriage upon the various forms of neurosis that we have mentioned, and, to begin with the simplest:—Does marriage generally do good or harm in grave hysteria? The day is passing, if it be not already past, in which hysteria and ovarian disease are looked upon as interchangeable terms; that the adolescent of either sex, in developing sexual function, has to pass through a baptism of fire, I admit; but this disturbance, though associated with development of a new function, may really be as well marked along the nutritive or nervous lines as along the reproductive. A change is effected in the whole organism at this period, and the stress will probably fall most heavily upon the least stable part. It would be harmful, in my experience, if every young hysteric were then and there married. The relief, if any, would be but temporary, and the result to the developing organism would be disastrous. I do not believe myself that hysteria is *generally* benefited by marriage. Most of us have seen cases of severe hysteria occurring in married women. I have not had many opportunities of observing grave hysteria before marriage, and of seeing the same cases after they had been married and had children; but, though somewhat in opposition to the principle which I have laid down, I admit I have seen one such case, in which anorexia nervosa and extreme depression occurring in a young single girl passed off after marriage and the birth of children. On the other hand, I have seen several cases in which the hysterical girl has become the insane mother, and the hoped-for cure by marriage has proved a delusive dream.

After hysteria the relationships of hystero-epilepsy and hysteria to marriage are to be noted. I think no one would dream of recommending marriage in cases where epilepsy was undoubted, and fully developed, if contracting parties could be found foolish enough to enter into marriages with such patients; but on more than one occasion I have been asked my opinion in such a case as the following. A young woman, the daughter of a nervous mother, at about 18, being a large, massive, ill-regulated woman, developed some kind of convulsive fits. The fits occurred now and again, at night, were associated with loss of consciousness, a scream, and biting the tongue, so that the epilepsy was undoubted. Should this girl be encouraged to keep on an engagement into which

she had entered, or should she at once break it off? The fits had not been numerous, and seemed to vary directly with her physical condition, so that when she was in better general health she had none of them, but when she got below par they reappeared. But few fits altogether had occurred, and the lover was perfectly willing to go on with his engagement. Personally I was against the marriage, but it took place, and at all events up to two years afterwards there had been no recurrence of fits. This one case will not prove that it is good for epileptics to marry, but may point out the fact that certain unstable, nervous persons benefit by the development of their full animal natures. I should dread the effects of marriage upon an epileptic almost more than upon those who had been insane. The comparative rarity with which epileptics get well, and the mysterious causation of the whole epileptic condition, make it a dangerous experiment to recommend marriage for the relief of these unknown conditions. In speaking of the hysterical and their marriages one has said nothing about the possibility of the injury to the offspring, simply for want of facts to go upon, *i.e.*, *undoubted* facts. One has a vague and general idea that insane people seen in an asylum very frequently have hysterical relations, in fact, that there is a definite relation between hysteria and insanity, but if one were to attempt for a moment to prevent the hysterical from marrying, the world would become depopulated, at least of legitimate children. On the other hand, the relationship between epilepsy and insanity is very much more marked, and more fully established, so that an epileptic parent may, like Brown-Sequard's guinea-pigs, beget children who are epileptic, or insane even. Therefore, in speaking of marriage with epileptics, one has not only the hopelessness of cure, but the danger to the offspring to be considered. Next, and perhaps this is the question that will chiefly interest most of us:—Under what conditions are you to countenance marriage with either insane patients, patients who have been insane, or patients who have very strong nervous inheritance? To begin with, insane people have no right to marry. As we have before considered the relationship to divorce in such cases, I need not say any more. Next, as to those who have once been insane, the general public would say, of course, that they never ought to marry, not only because of their insanity, which the public still believes will necessarily return, but because it believes that an insane mother must have an insane child. Unfortunately, our general experience makes these two bold

propositions appear true. But before giving advice as to whether a patient should or should not marry after having had an attack of insanity, I think one should very definitely investigate the cause of the insanity and the nature of the attack, besides taking into consideration the nervous inheritance. Take an example. A man without any insane blood relations, having been exhausted by some strumous glands which had been discharging for a considerable time, is placed, socially, in circumstances leading to great depression. He was forced to live a subjective life. He was a highly trained man, had been imbued with extremely strict High-Church notions; thus suffering from an exhausting discharge, living a subjective life, and draining himself, as it were, of joy and healthy relaxation, the man became melancholy, with suicidal tendencies, and had to be placed in an asylum. After a time he got stronger, and as he got stronger he lost his depression, recovered his health completely, and was able to resume his occupation with complete satisfaction to himself and his clients. After keeping well for several years, he is told that his chances of sanity depend to a great extent upon his leading a more subjective and healthy life, and marriage is suggested to him. Before going further he determined to consult two or three doctors on the question, and here were several elements of confusion. Those who knew nothing about insanity at once advised him not to marry. Those who knew more about the subject advised him to marry, after having definitely told his history to any person whom he intended to make his wife. In this case there was no inheritance. The causation of the mental depression was traceable to physical weakness. The man had not only recovered, but had been enabled to follow his old occupation as well as ever before, so that there was complete restoration; and I can see no reason why that man should not stand as good a chance of keeping well as the majority of men. One question quite apart from the medical aspect of the case would have to be considered—that there are marriages and marriages, so that if you could ensure the prospect of comfort, that is, if you were able to see that the selected companion was suitable as far as years and means were concerned, the chances of maintenance of health would be greater than if there were great disparity of years and a certainty of poverty and anxiety to contend against. As I told this gentleman, when he anxiously asked about the possibility of any offspring being insane, such authorities as Dr. Maudsley said there would be more chance of genius for

his offspring than there would be for the offspring of those who had never suffered from any nervous disorder. Incidentally, I would here refer to conjugal frauds. Some would say, let the danger be kept for the parents alone; let means be taken to prevent offspring of the marriage of neurotic subjects. I myself should strongly oppose such measures, unless the patient had had several attacks of insanity, or unless there were already at least two children of the marriage. Most of us know the unsatisfactory nervous state seen in women of the middle and upper middle classes especially, who have no children. Whether it be their fault or the fault of their husbands, both suffer severely in mind and temper. Thus, as one is in the habit of seeing, the sexual function is the function which develops altruism, so without children the parents become egotistical, and egotism and insanity are not far apart.

Several other points have to be considered : for instance, the forms of insanity, and their relationships to inheritance and to recurrence. One would say to a person asking whether she might marry, "If you have strong insane inheritance, and if you have had already one attack occuring at about 20, more especially if there had been a tendency to hysteria or other emotional disturbance, you will marry at very great risk of breaking down after childbirth, and your future partner must be fully warned of this fact;" whereas if the insanity has been more accidental, if I may use the term, more the result of some other physical cause, the chances of recurrence are less, and your advice may be given in accordance with that experience. I am afraid, however, none of us are in a position to say what cases will or will not recur.

Another point is when a patient may be married, that is, how soon after an attack of insanity. Most of us have seen cases in which the insane inheritance has been transmitted directly, and, if I may say so, immediately. I have seen three or four cases in which children have been begotten by insane parents who were suffering from acute insanity at the time of their begetting. Such persons are almost sure to be weak-minded, idiotic, or imbecile from birth. On the other hand, the greater distance there is between the attack and the begetting of the child, the less danger is there to the offspring. I am in the habit of saying that a general paralytic father rarely begets an insane child, unless that child is begotten during the active stage of the disease. I would even go further, and say that I have seen cases of inheritance in which the inherit-

ance has been in distinct relationship to an injury to the head, that a child begotten by the father a short time after a severe concussion of the brain, had been the only one who developed incurable insanity, the child next begotten being nervous and hysterical, and the rest of the children being perfectly natural. The point, then, upon which I would insist, is that the danger to the offspring is directly in relationship to the active insanity itself—that a parent who has been insane may beget an insane child soon after recovery, before the attack or during the attack of insanity, but that he may beget perfectly sane children in the interval. I suppose most of you will ask, who is to judge as to when the chance of getting insane children is past? and I am afraid I am not in a position to make any definite answer. Collaterally, one would also say that marriage may have a dangerous effect upon a person of nervous inheritance. Every now and again one sees such persons upset by the shock of marriage itself, and each year one has one or more cases of so-called post-connubial insanity. The dangers, then, to neurotic subjects in marriage are that they may develope insanity, they may develope hysteria, they may develope epilepsy as a result of the marriage. They may develope insanity after child-birth, or, if children are prevented, they still may develope nervous symptoms; and even though the marriage may be put off till past the child-bearing period, yet the patients are not safe from attacks of nervous disease.

To sum up the whole matter, one would say that marriage will relieve a certain number of hysterical cases, and that it is justifiable in a certain number of cases who have suffered from insanity. I should never advise marriage as a cure for hysteria without warning the friends that it might or might not be beneficial; and that the good depends not only on the marriage, but upon so many other circumstances. I should not oppose every marriage of those who have been insane, provided, only one of the contracting parties had been so, and the other was of good physical health and not of nervous disposition.

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On the Mental Condition in Hypnotism. By D. Hack Tuke, M.D., F.R.C.P.*

Some of the members now present were in this room a few weeks ago when Carl Hansen, a noted hypnotist from Denmark, induced in several persons a more or less marked degree of that condition known as hypnotism or Braidism, and we had the opportunity of making some experiments upon the subjects while in this state. Although the hypnotic phenomena were by no means so striking as is often the case, there were some interesting points elicited which, taken along with other experiments of a similar nature which I have witnessed before and since, will, I hope, form sufficient material for some considerations on the nature of the condition which is thus induced *psychologically* and *physiologically*, though I bring forward these remarks expecting to be enlightened myself in a delicate and difficult problem rather than hoping to enlighten those whom I have the honour to address to-night.

I have for years been strongly impressed with the interest and physiological importance of these phenomena, but I frankly confess that often as I have endeavoured to form a clear idea of the cerebro-mental condition of hypnotised persons I have felt misgivings as to whether I had succeeded; at any rate, I feel sure that I, for one, am not justified in speaking dogmatically as to the physiology or psychology of hypnotism, and as we go along we shall, if I am not mistaken, be disposed to hold some views as possibly, others as probably, and a few perhaps as certainly true.

The data upon which we have to attempt to form an opinion or construct a theory are—

I. The conditions necessary to induce the state in question.

II. The objective symptoms of the hypnotised person so far as we can observe them; and

III. The subjective state experienced and described by himself in those instances in which memory, more or less distinct, is retained of what has been present to the mind during the hypnotic condition.

I am fortunate in having obtained from several competent gentlemen who have been hypnotised a description of their own feelings during the state when conscious, one being Mr. W. North, B.A., Lecturer on Physiology at Westminster

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Hospital, and for three years Sharpey Scholar at University College, London; another, Mr. M—, a medical student at St. Thomas's Hospital; the other a clergyman; all able co-adjutors in this enquiry.

Although the Mental Condition present in Hypnotism is the title and object of my paper, I shall touch upon the matters comprised under the first and second sections before entering upon the third, as they bear more or less directly upon the ultimate question discussed.

I. As to the conditions necessary to induce the hypnotic state.

As is well known, staring at a disc or some well-defined object is a very frequent method employed for this purpose, but we know that other methods are effective, as the monotonous sensory impressions produced by passes, by counting up to several hundred figures, by listening to the ticking of a watch, &c.

In a milder form we do the same sort of thing constantly in trying to go to sleep; in fact, I am often surprised that persons do not sometimes throw themselves into an actually hypnotic condition in attempting to go to sleep.

The principle common to the various modes of hypnotising is, on the physical side, the stimulation, more or less prolonged, of a sensory nerve in close relation to the brain, calculated to ultimately exhaust some portion of that organ, and on the mental side the rivetting the attention on one idea. Looking at an object is not essential, for the blind man may be hypnotised, and in susceptible persons the merely expecting to be hypnotised is sufficient to induce it, the expectation in this case involving the concentration of the attention to one point.

Mr. North, in his notes, says:—"I have not the smallest doubt that, at first, I succeeded in abstracting myself, as it were, from surrounding circumstances. I had been reading very hard for days past on the subject of intestinal digestion in relation to the bacteria produced, and I pictured to myself the interior of the intestine and its contents; then I tried to picture a special form of bacteria, and while I was engaged in contemplating its changes of form I seemed to lose all consciousness of persons around me."

On a subsequent trial being made (see foot note, p. 60) he looked at his boot, and thus describes the process:—"I ultimately succeeded in fixing my attention on six points of light reflected upon my boot, and having some minute resemblance in position to the constellation Orion. After looking

fixedly at this for what seemed to me a very long time, the idea of the constellation vanished, and its place was taken by the outline of the lower part of the face of a friend. All I could see was his beard and mouth and part of his nose and one cheek, the rest was abruptly cut off by a broad, black area; the details were tolerably vivid."

The voluntary surrender of the will—the subject placing himself passively in the hands of the operator—is also an important factor in nearly all the processes. It is the initial step to the subsequent abandonment of the will of the subject to that of another; but the concurrence of the will is not absolutely necessary in those who have been already hypnotised and are highly susceptible to sensory impressions, especially if these are associated in their minds with the hypnotic sleep. M. Richer of the Salpêtrière, whose researches in hypnotism are well known, has shown that the subject may be surprised, and even rendered cataleptic, the moment his attention is in the least arrested. He is seized, and, as it were, instantaneously petrified, whatever efforts he makes to resist the influence. M. Richer constantly induces hypnotism by throwing a brilliant electric light upon the face of persons not expecting it, or by suddenly striking a gong which had been concealed. Sometimes it has happened that others have passed into this cataleptic condition who happened to be on the spot, or near, for whom the experiment was not intended. An amusing illustration of this occurred one day at the Salpêtrière, and occasioned a scene which, as M. Richer, in a communication with which he has favoured me, says was "assez plaisante." One of the patients was suspected of stealing some photographs from the hospital, but she indignantly denied the charge. One morning M. Richer, after having made some experiments upon other subjects, found the suspected thief with her hand in the drawer containing the photographs, having already concealed some of them in her pocket. M. Richer approached her. She did not move; she was fixed—she was transformed into a statue, so to speak. The blows on the gong made in the adjoining ward had rendered her cataleptic at the very moment when, away from the observation of all, she committed the theft. M. Richer awoke her by blowing on her face. Her confusion can be imagined. It was no longer possible to deny her larceny. Were burglars but hysterical or neurotic what a grand resource would the police have in hypnotism!

II. As to the objective symptoms of the hypnotised.

These necessarily vary with the stage or type, and before

proceeding further I must here observe that it is essential to bear in mind that no description of symptoms, whether bodily or mental, applies to all the stages or classes of hypnotism. I may remind you that Charcot and Richer, and, following them, Tamburini and Seppelli, recognise three fundamental types, the cataleptic, the lethargic, and the somnambulistic. In the first the limbs retain the positions in which they are placed for a considerable time, without effort; in the second (the lethargic) the muscles which are relaxed are found to have the remarkable property of contracting in a most definite way under gentle mechanical applications; in the third (the somnambulistic) the state of the subject answers much more to what is popularly understood as the so-called magnetic or mesmeric sleep. Contractions of the limbs can be induced, but they are of a different character from those in the cataleptic form or the excitability of the muscles in the lethargic state.

In face of the simulation so frequently practised, it is especially important to note the objective symptoms in hypnotism, but in describing them now I have more particularly in view to give a complete picture of the symptoms presented in hypnotism, for I shall not confine myself, as I have said, strictly to the mental condition, seeing how much the state of the body elucidates that of the mind.

Pupils.—There are, when the subject regards the disc, the natural effects of increased accommodation, strabismus and contracted pupils; and even after removal of the disc, the eyes often have a peculiar appearance from a very slight strabismus, and the hypnotised person is unable to read a paper without bringing it near to him.

After the first effect of looking at an object has caused the pupils to contract, they become dilated if the individual passes into the hypnotic state. Often I have observed them widely dilated and sluggish, an indication of the functional activity of the medulla oblongata as regards the sympathetic as well as the respiratory centre.

On measuring Mr. North's pupils before and during the sleep we found them 3 and 6 millimetres respectively.

Mr. Braid speaks of the pupils being greatly dilated and highly insensible to light, while after a time they become contracted, but still insensible to light.

Tamburini and Seppelli find the pupils dilated and insensible to light, but Heidenhain adduces their sensibility to light as a proof that the corpora quadrigemina are not affected by hypnotism.

Cerebral Circulation.—Have we any means of determining the state of the cerebral circulation in hypnotism?

Sometimes there are indications of flushing and discomfort of the head, and Mr. Braid says that he occasionally observed the face so much flushed and the action of the heart so tumultuous that he aroused the subject, but certainly anything like serious cerebral disturbance appears to be very rare.

Heidenhain, in the first instance, believed the vessels to be contracted, and that the anæmia caused the sleep. But as those who are hypnotised are often flushed instead of being pale, he began to doubt this. Then he asked Professor Förster to examine the vessels of the retina with the ophthalmoscope. The operation was difficult, for the bright light soon aroused the subject. However, he succeeded in obtaining a sufficiently distinct view of the retina to make out that there was no contraction of the vessels. Heidenhain maintains that it can hardly be supposed that the vessels of the cerebrum and eyes are in an essentially different condition, and therefore finds another proof that the brain is not anæmic in the hypnotic sleep. There would, however, be a difference of opinion on this point, some not regarding the condition of the retina as to vascularity as a test of the state of the circulation in the brain.

That fulness of the cerebral vessels is not inconsistent with the condition of brain in hypnotism is, however, shown by the fact on which Heidenhain most relies, that persons can be hypnotised who have inhaled nitrite of amyl, as happened to his brother, and Dr. Kröner on whom Heidenhain tried the experiment of combining amyl and hypnotism with the result I have stated.

Respiration and Circulation.—The respiration and the pulsations of the heart are, as a rule, much quickened at first.

The pneumograph has been employed by Professor Tamburini, of Reggio Emilia, and some of his tracings are on the table. He finds the frequency of respiration to be doubled at first, and the inspiratory pause suppressed. Heidenhain says he has seen the number of respirations in fifteen seconds rise from 4 to 12, or even from 3 to 16.

M. Richer, at the Salpêtrière, has made similar tracings, and finds them very significant. They are useful, also, as a test of simulation. He says that with the cataleptic subject the tracing is uniform in character from beginning to end. With the simulator, on the contrary, it is composed of two distinct parts. At the beginning respiration is regular and normal; in the second stage, that which corresponds to the

indications of muscular fatigue, irregularity in the rhythm occurs with deep and rapid depressions, manifest indications of the disturbance of the respiration caused by the effort to simulate.

The quickened action of the lungs and heart was strikingly shown in the case of Mr. M—, of St. Thomas's, when I saw him hypnotised by Mr. Hansen a few weeks ago.

He writes: "After gazing for a few minutes at the disc that Mr. Hansen had given me on first going on the stage, I was beginning to fall comfortably asleep, but as soon as he began passing his hands over my face I felt a sort of oppression coming all over me; respiration became difficult, my heart was beating violently, and I felt a great increase of temperature." And of a much later period of the experiment he writes: "My heart was beating as fast as ever, and my temperature was still high. Respiration continued to be difficult."

In Mr. North's case* we observed the breathing and action of the heart were, on the contrary, calm. A pulse tracing was taken by Mr. Victor Horsley, but there was nothing to indicate any noteworthy change in the circulation.

Professor Tamburini has made careful pulse tracings also, which I exhibit.

I may add that Mr. Braid found the rise in the pulse from the simple muscular effort made to keep the legs and arms extended for five minutes to be about 20 per cent., while in a state of hypnotism it was 100 per cent. By rendering all the muscles limber the pulse, he found, fell to what it was before the experiment, or even below it.

Muscles.—M. Richer has made tracings of the muscular contractions of the arms in a hypnotised person who is cataleptic, which show the difference between the cataleptically rigid arm and one held out by a person not hypnotised. I mention this, although beside my immediate object, because when we tested the subjects in this room by holding out our own arms, the difference was not so great as might have been expected; but had we had a myograph at hand the test would have been decisive. In fact the myograph, the pneumograph, and the sphygmograph are most valuable means placed at our disposal by modern invention for obtaining trustworthy records of the objective symptoms of hypnotism.

Reflex Action.—I need not insist here upon the well-known fact that reflex actions are more easily excited in animals when

* On the occasion of a more recent experiment when Mr. Horsley and myself carefully observed Mr. N's. condition, while in the hypnotic state.

the cerebral lobes are removed, and that, therefore, if we assume, as we seem bound to do, that the cortex is rendered more or less functionless in hypnotism—that its controlling, inhibiting power is weakened if not suspended—it is only natural that rigidity of the muscles should be so easily produced reflexly by sensory stimuli. We were not, however, prepared to expect—and Heidenhain forcibly points this out—that the susceptibility continues for long after the hypnotic condition has passed away.

Then there is a milder contraction of the muscles produced by stroking or other mechanical means, which I have referred to under the term neuro-muscular hyper-excitability. Charcot and Richer have found they can produce contractions of isolated muscles in this way, as definitely as Duchenne did with galvanism. Of these most interesting effects I have some photographs here.

On the evening when Mr. Hansen experimented in this room, some of you will remember that in the case of a boy he produced well-marked distortion of the mouth by stroking the muscles on one side with his finger, the boy being awake, though remaining abnormally susceptible to reflex action after being aroused from the hypnotic state.

In some stages of hypnotism the subject can bear with ease a very heavy weight, owing, in this instance, not to the mental impression that a heavy weight is a light one, but to the rigid contraction of the muscles. Thus Mr. North, for example, was placed with his head on one chair and his heels upon another, and he says: "I heard Mr. Hansen express his intention of sitting on my legs. I remember wondering whether my posterior knee-ligament would stand it, and making up my mind not to interfere, *i.e.*, to let my outer self do as it liked. I remember being surprised when the strain came, for though probably 15 stone, it felt like a large pillow, of no weight at all."

In a considerable number of cases I have observed the tendon-reflexes to be the same as in the waking state; in some instances, exaggerated. It appears to depend upon the particular stage or type. It is stated by Richer that in the lethargic type they are much exaggerated, in the cataleptic type diminished, and in the somnambulistic type normal.

It is difficult to explain why in the supposed depressed condition of the hemispheres, the reflexes are not exaggerated in all these stages.

The power of co-ordinating movements is perfect in the

stage in which the muscles are not flaccid. Mr. Braid says of hypnotised persons, "The power of balancing themselves is so great that I have never seen one of these hypnotic somnambulists fall." ("Hypnotism or Nervous Sleep," p. 56.)

In the lethargic state the body sinks down, the limbs become flaccid, hanging down; and when raised they fall again heavily when left to themselves.

In the somnambulistic state resolution of the limbs is not so marked as in the lethargic state.

Galvanic reaction.—I have so few observations on this point that I can make no general statement. In one case, hypnotised at Bethlem Hospital, Mr. Lawford makes the following note:—"The muscles in the rigid arms of Mr. B—, who was fully conscious, reacted to a faradic current, much as in an ordinary arm, and with a current of 30 cells the rigidity disappeared."

M. Richer has found that galvanizing the muscles of the face does not modify in the least degree the nervous condition of a hypnotised person. The cataleptic condition is not affected by galvanism, although, strange to say, a puff of air has usually an immediate effect in rendering the muscles flaccid.

In the case of a girl at Guy's, Mr. Price has found that she readily feels a fairly strong interrupted current when applied to the tips of her fingers, and a strong current very quickly awakens her. I shall refer to her again.

III.—I now come to the subjective symptoms—those experienced and described by the hypnotised person after he has returned to his normal mental condition, as to his sensations, consciousness, volition, and intellect.

In considering this section we must be careful to bear in mind the very different mental states comprised under the term Hypnotism. I have already said that Charcot and Richer, as also Tamburini, recognise three grand types—the cataleptic, the lethargic, and the somnambulistic—but they admit that these classes are based upon very hysterical subjects, and that in ordinary cases they pass insensibly one into the other, and are not nearly so distinctive. I shall not adhere closely to these distinctions, but would point out that the boy who in this room remained, after looking at the disc which fell from him, in the same attitude, his hand and arm retaining their position, would be referred to the first category; that the other boy who fell into a sleep with his muscles flaccid, and who when somewhat roused displayed the symptoms of neuro-muscular hyper-excitability, would be relegated to the second

class; while the girl under Dr. Wilks, at Guy's, whom I have seen, belongs to the somnambulist division.

Sensation of Pain is, except in a very early stage, almost always deadened or quite suspended. Of course in the case of any subject in whose veracity one did not feel confidence, one would not draw any inference from apparent insensibility to pain, but there is ample evidence of anæsthesia being induced by hypnotism without resting on doubtful instances. Of course the degree of insensibility varies.

Mr. North, in his memoranda, says—"A pin was plunged into the ulnar side of my hand nearly up to its head. I heard the preparation made to do it. I felt the operation begin; there was hardly any pain. It felt simply as though some one was pressing an ordinary wooden match or some blunt instrument against my hand. When I was roused I distinctly felt pain in my hand, and it hurt me considerably to withdraw the pin."

On the second occasion, the muscular rigidity induced caused great pain. Mr. North also says that the light hurt his eyes when I raised the lids to examine the pupils.

In the case of the girl at Guy's, there is marked analgesia, but she exhibits all the signs of pain when she is told that the prick of a pin is painful. In this way one can produce alternate analgesia and hyperalgesia at will.

Tactile Sensibility.—In the early days of mesmerism, it was regarded as a proof of the insensibility to pain alleged to exist in that state being feigned, that the sense of touch was unaffected. Now that sensation of pain and tactile sensibility are shown to be physiologically distinct, the fact no longer excites suspicion or surprise.

Muscular Sense.—As is pointed out by M. Richer, the muscular sense may be the source of automatic movements perfectly co-ordinated, which produce the action of which the position of the limbs is the image. For example, the cataleptic patient is made to stand upon a chair with the hands taking hold of the folds of a curtain, as if climbing it; immediately the subject scales it or tries to.

Special Senses.—(1.) As regards the sense of *smell*, we applied assafœtida to the nose of a hypnotised boy in this room, and he did not at first appear to perceive it, but soon afterwards said the smell was pleasant. Strong ammonia was applied, and he bore it close to his nostrils for a much longer time than any of us could bear it; but at last it aroused him. In regard to another case, I cite from notes kindly made at the

time for me by Mr. Lawford, clinical assistant at Bethlem:—"After being hypnotised by Mr. Hansen, he apparently did not smell or feel the ammonia fumes; at least he was not aroused by them."

The girl at Guy's, when tested by Mr. Price, did not recognise the presence of scent (eau de cologne) on a handkerchief; and on other occasions has not been able to recognise odours.

In some states of hypnotism, on the other hand, the vastly heightened sensibility of the olfactory nerve is remarkable.

(2.) *Sight.* In an early stage—one, however, which may persist without passing into a deeper one—the sight seems to be partially affected. The subject appears to see, though confusedly, that which is immediately around him, and with which he is in direct relation, but to have a very vague, or no perception at all, of what is beyond this range. Mr. M—, the St. Thomas's student, says (speaking of his experience of the early stage), "When Mr. Hansen asked me to look at his eyes, I could not recognise in him the same man I had seen a few minutes before; his eyes seemed to me as if they were rays of light thrown on a prism. I could distinctly see a play of colours. Still I was in my full consciousness." The clergyman whom I mentioned as being hypnotised, describes his visual sensations in very much the same way. He says, "I could see the operator's eye becoming luminous like a ball of fire, then annulated, then changing colours."

To return to Mr. M—: When later on in the sleep I asked him to write his name, he did so, and he informs me that he could not see the letters distinctly as he wrote them. At a still later stage when Mr. Hansen threw something on the floor, and induced Mr. M— to think a baby was drowning in the water, the latter, with his eyes wide open, threw himself down to rescue it, but he assures me he could not see anything whatever at this time, and that he had then lost his consciousness. He may, however, have seen as some sleep-walkers see, although wholly unconscious of it when aroused from their sleep. In fact he must have *heard* Mr. Hansen, and yet cannot remember it now.

With the girl at Guy's Hospital, we found that, although when induced to write a letter, she wrote better when nothing was placed between her eyes and the paper, yet when walking in the ward she fell against anything that came in her way, and would have injured herself if not looked after.

Since writing the above I hear from Mr. Price that now, when in the somnambulistic condition, she walks about, avoiding objects in her way just as when awake. This, however,

has been in the ward in which she is placed, and not a strange ward where I saw her walking.

M. Richer has observed that although the eye of the cataleptic subject is fixed, and appears to see nothing (never quitting the imaginary point to which he seems attached), if an object be placed in the axis of vision and it is gently oscillated, the gaze of the subject is soon seen to be attracted to it, and able to follow all its movements; the rest of the body may remain cataleptic, but the eyes turn in all directions in spite of the experimenter, and generally the head follows the movements.

(3.) As regards *hearing*, the subject evidently hears well whatever is said to him, though in some instances he appears to hear what the operator says much better than what others say. The girl at Guy's hears one person as well as another. Mr. North says that while he was placed on two chairs, his head on one and his heels on the other, he heard Mr. Hansen express his intention of sitting on his legs. He also heard music in the room.

Mr. M— states that he heard distinctly what Mr. Hansen said to him. He heard him ask him to open his mouth, to strike Mr. Hansen's chest, to follow him, and so forth. Speaking of his condition just when he went off, he says, "The persons around me and the sounds they made seemed distant, and it was only when some unusual sound was made that I took the trouble to notice it."

Tamburini and Seppelli state that they have constantly found hyperæsthesia of this sense even in the most profound sleep. The subjects heard the footsteps of persons approaching the room in the distance, which the experimenters could not perceive.

(4.) *Taste.* This sense seems suspended, and whatever taste is suggested is adopted by the subject. With the girl at Guy's her tea tastes like coffee when she thinks it is the latter. Heidenhain observes—"I could put hot pickles in the mouth of a hypnotised person, and on my making masticatory movements he would proceed to chew them. Only on awaking would he perceive the hot taste." ("Animal Magnetism," p. 15.)

Mr. Price, a few days ago, tested the Guy's patient first in the normal and then in the hypnotised condition, with salt, sugar, and quinine. In the normal state she immediately recognised the first two, and said the third was very bitter, but of course did not know it by name. When hypnotised a few

minutes after by Mr. Price, and then tested, she did not taste the salt, sugar, or quinine; the sugar, however, which was coarsely pounded, she said was gritty.

We found that Mr. North tasted plum jam.

I pass now from the Sensations to other mental states, and I need hardly say we must recognize that very different conditions are comprised under the term Hypnotism, and that to speak of this or that psychical character being present in Hypnotism would be misleading, without any qualification.

1. There may be no unconsciousness whatever, and the subject may *appear* very much like other people. A certain susceptibility to impressions on the mental side, and to rigidity of the limbs on the physical side, may be all that marks the state of the subject.

Is it that the cerebral cortex is just sufficiently weakened in function to have lost its supremacy, without parting with its more secondary offices? Indeed, the mind may be so roused that there seems no abnormal mental manifestation whatever, and yet volition over the reflex rigidity set up by sensory impressions on a limb may be suspended. If it be asked, why in ordinary sleep, when the cortex is rendered so entirely functionless, we cannot excite the same reflex rigidity? the answer, I suppose, is that the sleep has extended beyond the cortex and involves the basal ganglia.

2. Let us take a deeper stage of Hypnotism, one in which there is decidedly more alteration in the mental functions themselves. The subject has more completely lost voluntary control over his actions and his trains of thought, and whatever he is told to do he does in obedience to the mandates or suggestions of the operator. Thus, if he is asked his name, he replies correctly, articulating the word without the slightest difficulty; but if he is authoritatively told that he can not possibly do so, he makes only futile efforts to say it. The question arises, does he really forget his name? or does he, while remembering it, lose the power of using his muscles of articulation, from the belief impressed upon him that he cannot articulate his name? It would seem rather due to the temporary loss of memory of the name, essentially similar to the condition of a man who, in a normal state, when suddenly asked someone's name, especially if from any cause nervous at the time, clean forgets it, and the more he struggles to recall it, the more he becomes embarrassed. Has no one, even among the medical psychologists whom I address, whose minds are of course in an all but perfect state of mental training, ever rung

the bell at the door of a friend's house, and in the interval which elapsed between this act and the appearance of the servant, passed into a reverie? Then, perchance, having to remember the name of the person upon whom he is calling, he first fears he has forgotten, and then really does forget it, to his own discomfiture and the perplexity of the janitor.

Those who were present in this room during the experiments I have referred to, may remember how a young man of the name of Batt, although under the influence of Hansen, was resolved to disprove the latter's assertion that he could not say his name, how he made valiant efforts to say it, and did so several times, but how after some ridiculous grimaces the "Batt" first became B, and then only silent gesticulations remained at his command. Although he had forgotten his own name, he at once gave Mr. Hansen's correctly, showing that his muscles were not paralysed. This man was not a subject of Hansen's, although he had been acted upon by him before; in fact Hansen supposed him to be a medical student, which he was not.

The hypnotised person may, however, not only be in this mental state of temporary amnesia, but he can be also rendered unable to use his articulating muscles. There is complete temporary paresis of these or any muscles the operator chooses to impress upon the subject's mind he cannot use. Darwin's success in rendering several persons unable to sneeze after actually taking snuff, is an illustration of a parallel condition.

In a subject who has passed completely into this deeper stage of Hypnotism, what is his condition as regards consciousness? Mr. North, in a graphic manner, says, when speaking of a period after he was decidedly affected by looking at the disc, "I was not unconscious, but I seemed to exist in duplicate. My inner self appeared to be thoroughly alive to all that was going on, but made up its mind not to control or interfere with the acts of the outer self; and the unwillingness or *inability* of the *inner* self to control the *outer* seemed to increase the longer the condition was maintained."

At a later stage Mr. North says, "I am told I spoke German to Mr. Hansen, and was not complimentary in my remarks. I should not like to say whether I was conscious of what I did or no. I think I was somewhat." At a still later stage he says, "Here I appear to have been absolutely unconscious for some moments."

There may be, we see from the above description by Mr.

North, a double or divided consciousness, which brings out in strong relief one feature of the singular mental condition in Hypnotism.

This subject of duplicate consciousness (I avoid the term double consciousness, as it applies to another mental phenomenon) is one of great interest, and might alone occupy an evening's discussion. As Dr. Bastian intimates in his book ("The Brain as an Organ of Mind"), the wonder is that with our two brains, presenting as they do marked differences in their convolutions on either side, we are not always conscious of a dual being.

That duplicate consciousness is by no means uncommon with the insane patient is certain; and this is closely associated with the confused sense of his relation to his former self, ending at last in a complete loss of personal identity, as in the case of a patient several years ago in Bethlem Hospital, who having lost himself—*i.e.*, the self he was most familiar with—used to seek for himself under the bed.

We cannot for a moment suppose that this division of consciousness takes place between the cerebral hemispheres on the one hand, and the lower ganglia on the other. It must be either between the two halves of the brain or different centres in the entire cortex. Mr. North's conclusion on his own case in this particular is "that the loss of consciousness is apparent rather than real, and," he adds, "I cannot better express my meaning than by describing my condition as one in which the subject is conscious that he is playing the fool, and his superior self looks on conscious of the absurdity of the actions or words, but at the same time either unable or unwilling to control them."

Mr. North gives, as an illustration, that he remembers Mr. Hansen trying to suggest rats to him, and that he (Mr. N.) repeated the Italian for rat, "Topo, Topo," several times. "I knew perfectly well," says Mr. North, "that I was doing so, and that I was playing the fool, *i.e.*, that my *outer* self was doing so, the *inner* self looking on, *too idle* to interfere." I may add that the Italian was suggested to Mr. North's mind by the fact that the previous day he had been reading some Italian fables about rats in the Italian class at University College.

The same splitting up of our consciousness occurs in the closely allied state of dreaming, and is well illustrated by what occurred to a friend of mine several years ago when in Switzerland. After an Alpine climb of nearly 20 hours, he arrived

one night at an inn where he was unable to procure a bed. He had to sleep in the bureau, and was constantly disturbed. He was also suffering intense thirst, and had to get up from the sofa to drink water every few minutes. When he shut his eyes innumerable visions passed before him associated with water. At last he slept and dreamt. His ordinary occupations when at home now suggested part of the dream. He dreamt he was mad. He had arranged that he should be conveyed to Bethlem Hospital, but he says one idea was that it would be a simpler thing to die. Whether this was suggested by one half of the brain I do not know, but one self asked the other self, "What will you die of?" He says the only answer that could be found was that arising out of his thirst. "Water on the brain or serous apoplexy." The other self responded, "Agreed." "And," says my informant, "in my dream I died. The malignant part of myself rubbed its hands and said, well now, we'll have a post-mortem," and a post-mortem was made. He saw his own calvarium removed, and the discovery made that there was no brain at all, only a miserable bag of membranes. In consequence he realized (he says) for the first time, "what a swindle he had been all his life!"

Mr. M—, of St. Thomas's, retained his consciousness during the greater part of the time he was hypnotised. "I knew perfectly what was going on," he writes, "but at the beginning of the fifth experiment I lost all my consciousness. I don't know what my operator did or said, except I remember he asked me to nurse a baby which had been ill-used and was crying, and when he told me that, I began to hear distinctly the cries of the baby, but on awaking from my state and told all that I had been doing, I could not believe it, as I had not the slightest idea of it."

I now come to speak of *Volition*.

There is obviously no spontaneity in the subjects of Hypnotism.

Sir William Hamilton observes that while we are wholly unable to conceive a being possessed of feeling and desire, and at the same time ignorant of any object upon which his affections may be employed, and unconscious of these affections themselves, we can conceive a being possessed of the power of recognizing existence, and yet wholly devoid of all feeling of pain and pleasure and of all powers of desire and volition. That which was merely a conception with Hamilton is actually witnessed in an early stage of Hypnotism.

How completely volition may be suspended, and the subject

become a mere automaton, is shown, and most graphically described by both Mr. M— and Mr. North.

The former writes, referring to his mental condition after entering the hypnotic state :—"I tried to get out from this state but my efforts were vain. I felt it was too late, and I saw that I was entirely at the mercy of my operator. I then felt a sort of dull feeling, and saw that it was now out of my power to use my own will. Mr. Hansen first shut my mouth and asked me to try and open it again." (I must add that Mr. Hansen at the same time assured Mr. M— that he could not do so). "But it was utterly impossible for me to do it. I felt that all the muscles concerned in this act were in a state of rigor. In the second experiment he asked me to strike his chest. I succeeded the first time, but afterwards I felt my arm repelled from him. I knew that he was near enough to me, but still each time my hand was about a couple of inches from his chest it was pushed backwards by a power much beyond my strength." It will be seen that Mr. M—'s complete subjection to Mr. Hansen led him to conclude that there was an objective force influencing him, whereas the real interpretation of the phenomenon is a purely subjective one, viz., that he believed he could not strike Mr. Hansen, and therefore could not, his brain being reduced to the peculiar condition brought about by Hypnotism. The same explanation appears to apply to the next experiment. Mr. M— proceeds—"Mr. Hansen ordered me to follow him. I tried to remain in my place, but Mr. H. had such an influence over me that I felt dragged after him. I felt a great power was attracting me to the operator." The next experiment is particularly interesting, as showing how completely a hypnotised person may have lost his control and passed into a state of automatism, and yet not believe the fact insisted upon by the operator as the reason for performing a particular act. The act is performed because the actor cannot help performing it; he is an automaton. Mr. M— says—"In the fourth experiment Mr. Hansen told me that my hair was on fire. I touched my head and saw that he was wrong. He then told me to put my head in cold water, directing me at the same time to a gas-burner. I felt it was not water. I felt the heat, but yet I could not refuse putting down my head and trying to wash it."

The clergyman whom I saw hypnotised, and who wrote down for me a description of his sensations, experienced the same feeling as Mr. M—, and interprets it in the same sense. He writes, "The attracting and repelling the subject was a very

successful experiment. I could describe it only as a gentle power drawing or repelling the body. For stopping the speech the operator must have formed a battery between the jaws. It was but feeble, but sufficiently strong to make it pleasanter to let them remain shut than to try to open them."

But although the will is so strikingly subject to the operator, there appears to be a limit, for even with the girl at Guy's, who does almost everything you tell her, we could not induce her to drink a cup of tea when it was suggested that it was brandy, and Mr. Hansen declares that a fine moral sense survives the suspension of the higher intellectual functions.

Under the head of "Automatism at Command," Heidenhain relates how he made his brother, when hypnotised, do many things he certainly would not have done when awake. Thus, a glass containing ink was given him, and it was suggested to him (or rather he was requested) to drink some beer. He began to drink the ink at once. When ordered to thrust his hand into a flame he did so. Lastly, "he so unmercifully cut off with scissors his whiskers which he had assiduously cultivated for a year, that on awaking he was greatly enraged." This was rather hard lines for the poor brother, I must say, but then it was in the cause of science—and Hypnotism.

Susceptibility to Suggestions.—Of the characteristics of the mental condition in Hypnotism, this extreme susceptibility to outside suggestions is most surprising. The individuality of the hypnotic subject being deleted for the time, he represents the logical consequence of the organization of men in society who are practically will-less, who are at the mercy of every suggestion however absurd, and every crotchet however wild and unpractical. This ideoplastic state finds its analogue also among the actually insane; the tyrant of their organization —that which tyrannises over their thoughts and lives—being some fixed idea or a disordered perceptive centre, or in the absence of these, the unwholesome susceptibility to the influence of others, as in the case of the unstable hysterical girl who adores every curate she meets with, and would willingly do anything he tells her to do.

Mr. Price writes as follows to me in regard to suggestions made to the girl at Guy's Hospital:—

"On its being suggested to her that she is dying, she gradually relaxes her muscles to a certain extent, and if standing falls backwards, not flat, at first, but gradually. When in this state it is useless attempting to call her attention to anything. She pays no notice whatever. On being told, how-

ever, that she is alive, she gets up and goes on as before. Likewise on the idea being suggested to her that her hands are being cut off, nothing can induce her to use her fingers. She uses the hand as a stump. I have attempted, after waiting a short time to catch her unawares, by asking her to hold or pick up something, but without success. Frequently I have found the effect of a command of any kind to wear off before many minutes."

The influence of suggestion in inducing a state of ecstasy is so well marked, that if an artist wishes to have before him a study of an ecstatic, he could not do better, from an art stand-point, than hypnotise his model, and induce the beatific vision, which elevates and refines the expression in so wonderful a manner.

Hallucinations are so easily induced that Hypnotism offers a wide field for illustrating the analogous conditions familiar to us in mental diseases. I cannot enter in detail on this tempting aspect of the subject now; a few words must suffice.

The hallucinations induced during the hypnotic sleep may continue for some time after the subject is awake, just as contraction of a muscle will sometimes persist for hours after the sleep has passed away. Further, the delusion created by the operator may be retained in some instances afterwards. The localized cerebral impression survives in spite of the return of the intellectual functions, and of the subject's having regained possession of his senses and consciousness, so as to appear in these respects as fully himself as before the experiment. Yet the person does not the less persist in rambling on the one point in relation to the hallucination or delusion.

Thus a person, to cite an actual example of a woman at the Salpêtrière described to me by M. Richer, will continue to see a bird of which the image has been evoked during the hypnotic sleep. Upon any other subject her intelligence and her special senses are not in fault, but in spite of the assertions of those around her, she maintains that there is really a bird there, that she sees it, that she touches it, with so profound a conviction that to her it seems that all who assert the contrary are only mocking her. This cerebral impression may persist some time, but it ends by being effaced and disappearing along with the delusion with which it was associated. It is then curious to see this patient try and find out how the bird has disappeared, and inquire whether she has not been the sport of a dream, without, however, being able to explain what has happened, to her satisfaction.

I have seen a lady when hypnotised presented with a number of strips of brown paper, the idea being suggested to her at the same time that they were flowers. Of these she at once made a nosegay, and smelt them frequently as if enjoying their fragrance. As when she was aroused she was wholly unconscious of what had occurred, there was no means of ascertaining whether she fancied at the time that she smelt the imaginary nosegay or not, or whether the action of putting it to her nose was the automatic motor action arising from the idea organically linked with it.

Similar automatic actions or changes of facial expression can be induced without a word being uttered by the operator, simply by directing the look in particular directions calculated to excite ideas associated with the position of certain muscles; or again by the silent gestures of the operator. I have seen this to perfection in some persons recently operated on in London, and M. Richer* has made a series of experiments of this kind. Thus he finds that when the look is directed upwards the expression becomes radiant, and there are sometimes signs of a gay hallucination; when, on the contrary, the look is directed downwards, the expression is sombre, and there may be indications of a terrible hallucination. Under the influence of hallucinations thus provoked, the cataleptic state may cease completely, and the subject walk about and follow the object upon which the look is directed, assuming attitudes in relation to the hallucination which may have been suggested. But when the fixed object is rapidly withdrawn from the field of vision, the eye immediately resumes its original fixity, and the general cataleptic condition returns in all its force. A gesture on the part of the operator is servilely obeyed by the cataleptic. Upon a sign given by the finger, the subject, without opposing the slightest resistance, rises, sits down, lies on the ground, rises again, walks, and stands still.

There are other phenomena of automatism which are more complex, and require for their production the unconscious operation of the memory. If the eye is directed to anything whose use is known to the subject, the cataleptic almost immediately emerges from this condition in order to proceed in some degree irresistibly to the act for which the object is intended. With patients susceptible to this mode of automatism (for all are not) the experiment has been varied in a

* The illustrations which follow have been kindly communicated by him to the writer.

thousand ways, and at the Salpêtrière has always yielded the same results. A bonnet is placed in the hands of the subject. She turns it about with her fingers, and soon places it upon her head. If next a jacket is given her, immediately she dresses and buttons it carefully; or a glass, she drinks; a broom, she sweeps; fire tongues, she goes at once to the fire, takes off the wood or coals, then puts them back; an umbrella, she opens it, and seems to feel the storm, for she shivers. What happens if the object placed her hands is suddenly removed? Why, she immediately becomes cataleptic.

There is no doubt that by being frequently hypnotised, a person more readily performs certain acts; his muscles more readily contract, and so forth; although he is unconscious and is not intentionally improving upon previous exhibitions. As M. Richer points out, such a phenomenon so far from being a proof of trickery is but an illustration of organic memory.*

That the higher centres exercise their functions to a certain extent in some stages of Hypnotism is doubtless true, notwithstanding their depressed condition. The hypnotised person, who is told his hair is in flames and convinces himself by putting his hand to it that this is not the case, performs a mental process, in fact works out a syllogism however simple it may be. Mr. North, again, while hypnotised began to walk backwards, upon which a gentleman said to him, "Mr. North, can you not walk forwards?" This led to a distinct though very simple use of the logical faculty. "I remember," says Mr. North, "arguing out in my mind, wearily, that it followed from this that I was walking backwards."

We asked Mr. North, when hypnotised (the second time), some simple questions in arithmetic. When asked to subtract he added. He says, "I half understood the questions, but felt too lazy to do more than the *easy* operation of addition. The question you asked as to 100 and 25 was very confused. I seemed to see the figure 100 thus:—100ooooo25." When going off, Mr. North's ideas were in some respects intensified. He says, "I tried to realize the features of several persons in

* "Hypnotism offers," observes M. Richer, "the most remarkable example, if I am not mistaken, of organic memory. Certain modifications, introduced into the nervous system, are preserved there, and are reproduced without any participation of the consciousness. With the exception of one particular (absence of consciousness), the resemblance between the two memories, the organic and the psychological, is perfect."—(*Letter to the Writer*).

whose company I had been on the previous evening, and succeeded in producing *a most vivid impression* of three or four of them. Minute details seemed almost tangible." The features of a little girl were exquisitely distinct. In fact what struck him most in going off was that instead of passing into oblivion as in ordinary sleep, he passed into one of greater mental intensity.

3. I pass on now to a different and a deeper stage of Hypnotism—that to which the term somnambulistic should be applied—one in which there is complete unconsciousness of what is passing around, and the subject on being aroused remembers nothing of what has occurred during this sleep-waking state, for waking as well as sleeping it is, since the subject responds to questions, can write letters, can eat and drink, can sew (if a woman), and can walk about, though not always with safety. She may also be completely under the influence of the operator, but is not able, as the subjects of the earlier stage are, to attempt to oppose his mandates, in fact they have no wish in the matter. A very good example of this condition of artificial somnambulism is seen in the girl at Guy's Hospital. I may add here that she was admitted for pains in the head among other symptoms, and was found to walk in her sleep. This induced Mr. Price, the house physician, to try and hypnotise her, which he successfully did again and again. When I saw her in this state she was made to do almost whatever we suggested. She could be rendered stone deaf, and the curious fact here was that although she did not appear to hear what we said to her, the moment we said, "Now you can hear," she was released from the spell. How could she when she was deaf hear us say that she *could* hear? This which appeared at first sight almost a suspicious circumstance, is really consistent with what we are supposing to be the mental condition of a hypnotised subject. The girl was not really deaf as regards sounds, but only believed herself to be deaf, and believing herself deaf heard only when she thought she could hear.

As I have said, we got her to write a short letter. When we interposed a sheet of paper between her eyes and the letter, she wrote the line more crookedly. We asked her to write the name of the house physician, which she knew, but she wrote another; and her own name but she wrote quite a different one.

Dr. Carpenter says he has seen Braid's subjects write with perfect regularity, even when a screen has been placed before

the eyes, and dot an *i* or cross a *t*. But if the paper was removed somewhat from the position it had been in, the writer made the corrections on the place which would have been right had the paper remained *in situ*, but out of place after the paper which the writer could no longer see had been removed.

I may add that we gave this girl her tea during the time she was hypnotised, her tea seeming to her changed, through suggestion, into coffee, and her bread and butter into cake. After she was roused she was quite unconscious of having had her tea, her visceral sensations not sufficing to inform her. When she went into the ward she wished for her tea as usual, just as if she had had none.

A similar experience occurred to M. Lasègue (whose able extempore discourse at the International Congress in 1881 will not be forgotten by those who heard it) at the Necker Hospital, Paris. He begged a young female patient, whom he had hypnotised, to dine while in the artificial sleep. Her family had that day sent her a plate of roast beef with which she was much delighted. She ate her favourite dish with great relish, and said she should be very glad if she could always enjoy her meal as much. She was arrested from the sleep in the midst of her enjoyment, and her eyes were at once turned to her beloved beef. Great was her surprise and vexation to find the plate empty, and when she was convinced she had dined in her sleep, her eyes moistened, and she bitterly reproached the doctor for having prevented her tasting her food.

An ophthalmic surgeon (the late Mr. Critchett, I believe) had a patient suffering from glaucoma, who, for two years and a-half before her death, was fed while rendered unconscious by Hypnotism—and then only. She had no remembrance of having taken food, and even solemnly asserted that she had not done so.

It would seem probable, if not certain, that the hypnotised person, unless perhaps when he is in a profound sleep, receives the sensory impressions made upon his brain, but that in his condition of reverie or abstraction he does not consciously recognise them, and therefore does not remember them. It will often happen that the subject, who cannot after waking recall what he has done, has the scene brought suddenly to his mind subsequently, just as happens to ourselves in regard to dreams; showing in both instances that the impression has been registered in the cortical perceptive centres,

although not consciously perceived. With the hypnotised, the powerful concentration of the attention diverts the thoughts and ideas into one channel to the exclusion of others.

The influence of sensory impressions in causing responsive movements in a hypnotised subject when he appears perfectly unconscious, and on waking says, and no doubt says truly, that his mind is a complete blank as to the past, was well shown in a boy I recently saw hypnotised. He repeated automatically every thing said to him; he moved wherever the person who was *en rapport* with him moved, and in short was an echo of everything said and done. Although illiterate, he repeated Greek or German lines when they were said to him, and so on; but nothing happened, of course, if anything interposed between his senses and the external stimulus. I may add that on one occasion this automatic mimic could not be roused, and the operator was unable to escape from his echo or shadow till four o'clock next morning, when the former exclaimed in despair, "*Well, I shall go to sleep.*" The subject responding, "*Well, I shall go to sleep,*" remained quietly in the chair, and appears to have really passed into ordinary sleep.

It must be observed that the loss of will and the loss of consciousness are not equally suspended, for the loss of consciousness may be slight while the loss of will power is complete.

It must be remembered that consciousness is an accident so to speak, not an essential element in all our mental acts. For the exercise of volition as ordinarily understood, consciousness is no doubt required, but the converse is not true, for we see there may be consciousness without volition, both in paralysis and in Hypnotism. Again, although the cerebral cortex is essential to consciousness, the perceptive centres of the cortex may be called into action without consciousness. In the girl at Guy's we must suppose that not merely the basal ganglia are in function, but that her speech centre, her graphic and other perceptive centres, are so also. It is not, therefore, a question of the cortex of the hemispheres as a whole, on the one hand, and the ganglia at the base of the brain, on the other, but of different localized areas in the hemispheres themselves. The reflex action of the cortex, apart from consciousness, as insisted upon by Prof. Laycock, is as great a fact as the reflex action of the basal ganglia, the medulla, and the cord.

In addition then to the perceptive centres of the cerebral cortex which may be unaffected by Hypnotism, there may, as we have seen, be certain mental functions in operation, although the will is abrogated.

An able French writer on Hypnotism in the "Revue Philosophique" (M. Ch. Richet)* brings this out very strongly, and observes that all is not said when one pronounces the word "automatism," and compares the hypnotised person to the pigeon of Flourens deprived of its brain, and plunged into a dreamless sleep, "for the somnambulist has a perfect memory, a very lively intelligence, and an imagination which constructs the most complex hallucinations." I think this is a somewhat exaggerated description; but no doubt in some instances there is, along with depression of the will, exaltation of ideas—in some cases, of the memory of the past; and therefore there must be a certain functional activity of the cerebral cortex, at the time when the will is suspended; in other words we have the reflex cerebral action of Laycock along with organic memory; but the French physiologist appears to be unaware of Laycock's doctrine, and announces as new that "we must admit side by side with somatic automatism a psychical automatism. As there are reflexes of the medulla oblongata, so there are also cerebral, psychical, reflexes."†

I have on a former occasion referred to Laycock's theory of the condition of the encephalic ganglia in mesmeric sleep, where he points out that the great fact common to it and allied states is that the will and consciousness are suspended, and the brain is placed in the condition of the true spinal or reflex system, recognising here two functionally opposite conditions as simultaneously present—the suspension or negation of certain, that is the highest cerebral functions, and the unantagonised positive reflex action of others. As Hughlings Jackson justly observes on this opinion, "If attention be too much taken up with the words 'odyle,' 'mesmerism,' and 'electro-biology,' the reader may overlook the fact that however nonsensical be the doctrines those words cover in the mind of the populace, the sentence quoted [from Laycock] shows a broad principle of great value in the investigation and classification of disease; that there is a reduction to a more automatic condition, or in other words there is a duplex condition, negative, and positive."‡

* "Revue Philosophique" (Ribot), Nov., 1880, p. 478.
† *Op. cit.* 480.
‡ "The Medical Press and Circular," Apr. 20, 1881.

Those who have read Heidenhain's book on Hypnotism know that he holds that the cause of the phenomena of Hypnotism lies in the inhibition of the activity of the ganglion-cells of the cerebral cortex, by prolonged stimulation of the sensory nerves of the face or the auditory or optic nerve.

There appears to be nothing in the views held by the highest authorities on inhibition,* against the possibility of a sensory nerve inhibiting the supreme centres, and Laycock's doctrine would fit in with this mode of producing arrest of volition as well as any other, but we certainly are at liberty to suppose as at least equally feasible that the highest centres are rendered inactive because they are exhausted, and not because they are inhibited.

"It will be found," says Mr. Braid, "that all the organs of special sense, excepting sight, including heat and cold and muscular motion or resistance, and certain mental faculties are at *first* prodigiously *exalted*. . . . . After a certain point, however, this exaltation of function is followed by a state of *depression* far greater than the torpor of *natural* sleep" (*op. cit.*, p. 29).

I agree with Mr. Romanes in the observation he makes in his preface to Heidenhain's book, that "the truth appears to be that in Hypnotism we are approaching a completely new field of physiological research, in the cultivation of which our previous knowledge of inhibition may properly be taken as the starting point. But further than this we must meanwhile be content to collect facts merely as facts; and without attempting to strain these facts into explanations derived from our knowledge of less complex nervous actions, we must patiently wait until explanations which we can feel to be adequate may be found to arise" (p. xii.).

To sum up the chief points relative to the mental condition present in Hypnotism:—

1. There may be consciousness during the state of Hypnotism, and it may pass rapidly or slowly into complete unconsciousness, as in the somnambulistic state; the manifestations not being dependent upon the presence or absence of consciousness which is merely an epiphenomenon.

2. Voluntary control over the thoughts and actions is suspended.

* In this connection, see the able papers on Inhibition, in "Nature," by Dr. Lauder Brunton, March 3, *et seq.*, 1883.

3. The reflex action, therefore, of the cerebral cortex to suggestions from without, so long as any channel of communication is open, comes into play.

4. While consciousness is retained, the perception of this reflex or automatic cerebral action conveys the impression that there are two Egos.

5. Some of the mental functions as Memory may be exalted, and there may be vivid hallucinations and delusions.

6. Unconscious reflex mimicry may be the only mental phenomenon present, the subject copying minutely everything said or done by the person with whom he is *en rapport*.

7. Impressions from without may be blocked at different points in the encephalon according to the areas affected and the completeness with which they are hypnotised; thus an impression or suggestion, whether by gesture or word or muscular stimulus, may take the round of the basal ganglia only, or may pass to the cortex, and having reached the cortex may excite ideation and reflex muscular actions with or without consciousness, and wholly independent of the will.

8. There may be in different states of Hypnotism exaltation or depression of sensation and the special senses.

In concluding these imperfect observations on a most interesting theme, let me anticipate a possible objection that may be felt, if not expressed, namely, that these researches are outside our specialty, and do not fall within the objects contemplated by the meetings of this Association. I would say in defence that one of the objects of the Medico-Psychological Association as deliberately adopted and laid down in our Rules is "the cultivation of Science in relation to Mental Disease," and I submit that to this disease the peculiar abnormal mental condition presented to us in Hypnotism is in close, significant, and most suggestive relation. I would also say that if the consideration of the Mental Condition in Hypnotism does not legitimately fall within our province, we are little better than psychological hypocrites in publishing an organ bearing the name of the "Journal of Mental Science."

CLINICAL NOTES AND CASES.

Case of Feigned Insanity. By Alex. Robertson, M.D., F.F.P.S.G., Physician to the City Parochial Asylum and Hospital, Glasgow.

In the "Journal" for October, 1881, I recorded a case of feigned insanity in a prisoner who was charged with the crime of murder. The form of mental disorder assumed in that case was acute mania; and the pourtrayment was so good that even the experienced prison officials, who are accustomed with attempts at imposture in all its varieties, were deceived by his histrionic skill. The following case differs in many of its aspects from that one, but it resembles it in respect that the prisoner ultimately confessed his imposition; though, as in the former case, not till after the distinct expression of medical opinion that he was malingering.

On the 16th October, I was asked by the Public Prosecutor (Procurator-Fiscal), in this city, to examine a man named John Roberts, in the prison, and report respecting his mental condition. I was informed that the prisoner was charged with the crime of theft by housebreaking, and that his trial was fixed for the following day at the Court of Justiciary, which was then sitting in Glasgow. In explanation of the shortness of the notice, it was said that though the authorities were aware that there had been indications of apparent insanity for a week or two, it was supposed that the apparent disorder was feigned, and it was hoped that he would give up his imposition before the day of trial arrived. The prisoner did not, however, take this anticipated step, but maintained his seeming condition, and his agent likewise intimated that it was intended to plead insanity in bar of trial; thereupon it was determined that the opinion of a medical expert should be obtained.

I was informed that the theft was committed on the 12th September, and that considerable ingenuity had been shown in its execution. Roberts was sent to jail on the 19th of the same month, after emitting a declaration of an ordinary kind before the Sheriff. On inquiry I learned that there was nothing in that statement, or in his demeanour at the time it was made, calculated to give rise to the least suspicion of his mental soundness.

Before seeing Roberts, I had first of all an interview with

the warders who had been most with him since his admission into the prison. Their testimony was to the effect that a few days after he came under their charge he made an apparent attempt at suicide. He had put a cord round his neck in a running noose, then passed it through an iron eye in the wall of his cell, near the floor, and afterwards round his foot, by which means he could have tightened it so as to have strangled himself without difficulty, had he been so disposed. The gaoler found him with the cord round his neck, and in the position described. This officer did not, however, think it a real attempt at self-destruction, as the cord was not tight; and as, in his belief, it had been put on just before his visit, which was made at the usual time for the inspection of the prisoners.

This was the first circumstance that directed attention to his mental condition. But from this time a marked change was observable in many respects. He now obstinately refused to work, sometimes would not speak when addressed, and occasionally took very little food for some days together. Generally, however, he spoke sensibly, except that he asserted he had committed murder, and was to be tried on that charge. Now and then he would lie on the floor of his cell, staring at the ceiling intently, as if he saw someone there, or heard a voice speaking to him from above. It was said that he had not been noisy, but, on the contrary, rather quiet and gloomy, and had been cleanly and correct in person and dress.

Two other prisoners, who had occupied the same cell with him since the time of his doubtful suicidal attempt, corroborated these statements of the warders; and they further testified that occasionally he did not sleep well, and had two or three times declared that he saw people at the window of the cell, which, in their belief, must have been imaginary.

I found Roberts to be a man rather under the average height, with a stout, firmly-knit frame. I was told that he was 45 years of age. He has a head of average size, and well-formed. His expression of countenance is restless, cunning, and furtive. When I spoke to him he looked at me, though he quickly averted his eyes, and was obviously indisposed to bear a steady gaze. His replies to questions regarding his previous career and other subjects were for the most part, but not altogether, reasonable and apparently correct. When, however, reference was made to the crime for which he was in prison, he professed complete ignorance of any circumstances relating to it, and declared that he was to be tried for murder.

It was quite true, he alleged, that he had committed murder—that he had seriously maltreated a woman with whom he cohabited, and thereafter had pushed her into the canal, where she was drowned. Though I assured him that I had positive information that this woman was alive and well, and though he thanked me for telling him so, yet in a few minutes he reverted to his statement that he would be tried for her murder; he further said that she came into his cell at night, and had even brought a razor to him, which he refused to accept. He became very pathetic in telling the story of his avowed crime, and in expressing his compunctions of conscience regarding it, so much so that even tears gathered in his eyes and trickled down his cheeks. Besides this, the leading subject on which he harped, he complained that thousands of rats came into his cell at night. There were other absurd statements of a somewhat similar kind, but these will suffice to convey an idea of their character.

It now devolved on me to decide on the facts, so far as I had been able to ascertain them. It may be mentioned that the warders were distinctly of opinion that the prisoner was feigning; but I could not find that, besides their impressions of the apparent suicidal attempt, they had any clear or definite grounds to state for their beliefs. I was also informed that Dr. Sutherland, the medical officer of the prison, held the same view; but, unfortunately, I was unable to see that gentleman. The course which I determined to take will be understood from the following report which I sent to the Fiscal after leaving the prison :—

> I hereby certify, on soul and conscience, that I have this day carefully examined John Roberts, prisoner in Duke St. Prison, with a view to determine his mental condition. My interview with him lasted upwards of an hour. It has not, however, resulted in my being able to express an opinion respecting his mental state. The case is of such a nature that it seems to me the prisoner would require to be re-examined at least on two other occasions, and, if practicable, at intervals of some days.

Notwithstanding the terms of this report, I was asked to see Roberts on the two following days, and, if possible, arrive at a conclusion regarding his alleged insanity, it being agreed to postpone his trial till about the close of the sitting of the Court. Accordingly, I had two other interviews with the prisoner, respectively on the 17th and 18th October, after which I informed the Fiscal that I was prepared to make a

definite statement in the case. Previously, however, I was told that if I had any hesitation his trial would be postponed till the next circuit, which would be in December. This delay, I said, was not necessary. My precognition was then taken. It was to the following effect :—

I am of opinion that the prisoner is feigning insanity. The apparent indications of mental disorder shown by him are not consistent with real insanity. Thus, at one time of each of the last two interviews, he declared that he had committed murder, and was lying under that charge, that there was no hope for him, and that he was eternally lost ; while at another time he said that he had £400 in gold, that he expected to inherit from £4,000 to £5,000, and intended going to Callao in Peru, where he resided some years ago : there he would purchase an estate, keep a riding horse, and had no doubt that he would get into the best society. At the last interview, he asserted that the island of St. Helena belonged to him.

These two kinds of apparent insanity are of a totally different nature, and are not met with in real unsoundness of mind in the same person at the same time. The one implies exaltation and the other depression—states of mind that do not exist together.

Further, his memory is good with regard to many things, such as remembering, without difficulty, the names of places in Peru and Brazil, and the names of several firms in Glasgow by whom, he says, he was employed during this year ; yet at both of my last interviews with him, which were nearly as long as my first one, he declared that he had never seen me before, unless it were some months ago, though I tried him both with my hat off and on, and referred to incidents of the preceding examinations.

Such correctness of memory in relation to a variety of subjects, and extraordinary blanks in reference to others, are not met with in real insanity at his age.

Again, his expression of face and general demeanour are not consistent with either of the two types of insanity which, in my opinion, are simultaneously feigned by him. They are indicative of cunning and suspicion, but neither of exaltation nor depression.

The trial, therefore, proceeded. The plea of insanity was departed from by the prisoner's counsel, and the case went to proof of the crime of theft. This was clearly brought home to him, and the jury, without leaving the box, unanimously found him guilty. A sentence of seven years' penal servitude was passed, this being the same as one to which he had been previously subjected.

While at the bar, the panel persisted in looking to either side in an odd sort of way, without giving apparent heed to the evidence ; maintaining, in fact, to the close, the semblance

of insanity. However, since the trial, I have been informed by Dr. Sutherland that he has fully confessed his imposition, admitting that he had been feigning mental unsoundness.

The question arises: What could be the prisoner's object in pretending to be insane? It is certainly by no means easy in many cases to discover the motive for exceptional forms of crime or imposture, but in this case it does not seem difficult to find. He had, undoubtedly, good reason, in view of his previous career, to apprehend, what actually occurred, that he would receive a severe sentence. It might well be also that, as the knowledge of the comforts of asylum life, with its general amenities, is now wide-spread through all ranks of the community, Roberts, being aware of it, might prefer that form of confinement, with all its drawbacks, to the more rigorous discipline of the prison. And it might also readily strike him that, though committed to an asylum, his confinement in it need not be a protracted one, if after maintaining his deceit for such a period as would allay suspicion, he should seem to his guardians to have become gradually restored to reason.

Case of Acute Loss of Memory. By Dr. Geo. H. Savage.

In describing the accompanying case, it will be seen that the loss of memory has been more sudden and more extreme than generally happens. This case suggests the difficult question as to whether loss of memory is to be considered as unsoundness of mind. Legally, one has no doubt but that persons who have extreme losses of memory would be considered as unfit to transact business. In noticing the development of the higher nervous organisms, one has to place memory as the great builder of nerve power. The mere fact that impressions are received goes for little in the construction of a mind, but the fact that these impressions can be stored and compared, points to the commencement of a highly-organised power. If, then, we meet with cases in which the perceptions remain, but the storage is wanting, the patient must be looked upon in very much the same way as the undeveloped. Those of us who are used to mix much with the insane, are aware of the persistence of memory in the majority of persons suffering from ordinary insanities, but we are also used to cases in which the memory is affected in various ways and in various degrees, so that in

one patient suffering from acute delirious mania we learn, after recovery, that there has been a blank in his recollection—a blank that was represented by the period of extreme delirious excitement, the time in which the incoherence and inconsequence of ideas were most marked—when perception seemed clear, but appeared to be associated with a peculiar reflection, so that when a word was said or an action done, it was repeated or mimicked by the insane person; or else the memory was so affected that groupings and verbal associations of words existed, but the memory of them afterwards was not retained. Again, we have patients in whom the memory is lost after a severe convulsive seizure, whether epileptic, apoplectic, or general paralytic. In these the memory may be only temporarily affected, or may be permanently affected. In epilepsy the memory is generally but temporarily affected, the patient having no recollection of what has happened during the attack, so that either with the *petit mal* or *grand mal* the patient is unconscious of what takes place. This was seen by me the other day in a little girl of 11, who had neurotic inheritance, which was exhibited by falls which were incomprehensible to her mother. The child, without any cry or change of appearance, suddenly fell, wherever she happened to be, or whatever she had in her hand, frequently caused injury to herself and destruction of property, but without the slightest knowledge that there had been a lapse in her life. This case was treated as due to epilepsy with the greatest advantage. Epilepsy, sooner or later does affect the memory, and it is said that the loss of memory depends directly upon the number of the fits, and not upon their severity. In apoplexy one is quite used to meet with cases in which the progressive dementia is most marked by the progressive loss of memory; and again, in general paralysis, of whatever nature the fits may be, the loss of memory is progressive, increasing after each fit, then for a time improving, to become again still more marked after the next convulsive seizure. The case that I have to report differs from all the classes I have already mentioned, and I find it difficult to fix on a definite diagnosis. If forced to give one, I should say that my opinion is that the case will prove to be one of general paralysis. But if this is to be the case there are sufficient points of interest still left to make it worth while recording.

Hephzibah S. C., married, 40. A paternal aunt was said to have suffered from some form of insanity. She has had one child, who is

now 20 years of age. The supposed cause of her illness was the protracted illness of her husband, which caused her great and continuous nursing and anxiety, and at the same time reduced her means of living. After much exhaustion, about the 8th Oct., 1882, she had a fit, which was said by her friends to have been looked upon by the doctor as simply hysterical; but from this time it was noticed that her memory was very seriously affected, so that she was said to have absolute loss of memory. When she was admitted the certificate stated that she said she had been married four years, yet had a child 16 years old. She did not know what her husband's occupation was, and did not know where she was, or where she had been. She constantly repeated the same question, without remembering that it had been answered. The confusion about her age, the age of her husband, and that of her child, was complete, and, though told within two minutes, she would within two minutes have forgotton the answers. She was admitted on the 28th October, and was then a tall, dark, healthy-looking woman, with no delusions so far as one could make out, and no active signs of insanity. She had no excitement, no exaltation, no hallucinations, no delusions, no melancholia, so that the only thing for which she was admitted was this mindlessness, as evidenced by loss of memory. We tried carefully to gauge the loss, to see if there was any sudden break in her intellectual life, but we found it perfectly impossible to fix any limit of memory. She would remember the date of her birth, and the day of her child's birth. She remembered that she had a husband, but unless paper was given to her she could not compute what the age of her own child was, the date of birth and the date of the year being given. She did not even answer a question as to the year twice alike, so that when asked what the date of the year was, she would say that she thought it was 1875 one day, and perhaps on the next day would say that she thought it must be 1873. When asked the day of the week she was quite at a loss, unless there was some newspaper or other indicator as to what it was. When asked the month of the year, she looked out of the window, and said she thought it must be some time in the winter, and that she fancied from the fires and the leaflessness of the trees that it was somewhere about Christmas. She had no memory as to whether it was before or after, or whether any Christmas festivities had taken place. She had no recollection of the name of the doctor, or even of that of the nurse. Though told daily where she was she could not recollect whether in London or in the country. It seemed that there was no distinct difference in the memory of either of the senses, so that when shown a picture and spoken to about it on one day, and shown again the same picture on the next day, she had no memory of it. If given an odour or a taste on the one day, she did not remember it on the next. If a quotation or an anecdote were brought to her notice, she had no recollection of it on the next day. She said that she had a firm recollection of faces, and it seemed to me that on one or two occasions she did recognise

the faces of people whom she had seen before, as doctors, or some of the people connected with the asylum. One could never be sure, because she retained a great deal of the polite, lady-like manner that must have been habitual with her, so that when introduced to a person and asked if she remembered him or her, she took it for granted that she ought to have recollected them, and would say, "I ought to know you," or, "I think I have seen you before, but my memory is bad." Another important thing was that each day she would come up, and in the same terms say, "You know I feel quite myself again now; my memory seems to have returned, and I feel quite well." We tried to see the duration of the memory, and found that within two minutes facts or faces seemed to have faded away. After she had been in this condition with very little improvement indeed till Dec. 2, she was noticed by the attendant, on getting her out of bed, to totter and appear giddy. She was then put to bed, and it was found that she had lost some power in the left arm. There was conjugate deviation of the eyes to the right side. She was then unconscious. She slowly recovered consciousness, but was aphasic. In this condition she was carefully examined, and it was found that there was no great loss of power in the left arm, or any power lost in the left leg, but there seemed to be some uneasy sensation on the whole of the left side, so that while lying in a semi-unconscious condition, her head (?) was slightly turned towards the right side. With the right hand she constantly seized the left hand, and pulled it across her chest, as if she felt that it was falling away from her. At the same time she picked and stroked the left side of her face, as if there were some uneasy sensation there. After remaining in this condition for several hours, she slowly recovered consciousness, but then weakness seemed marked on the left side. At least there was a tendency to drop in the hand, although the grasp was about as forcible as before the seizure. At the time the patient lost her speech, she still retained a few words. These were chiefly German, and here it may be said that she had lived in Germany for some years before her marriage, and was a fluent German scholar. By Dec. 4th she was getting about as usual, but still complained of uneasy feelings in her left side, but in every other particular she was as before, saying, "I have got my senses to-day." From this time up to the present date she has remained as nearly as possible in the condition that she was in before. I may say that the optic discs, being examined, gave evidence of no change, and that the muscles of both arms reacted normally to the continuous and interrupted current, the only difference being a slight increase in excitability in the left fore-arm. Since the last note, although the improvement in memory has been very small, one might almost say doubtful, yet I am inclined to think that there is some sign of gain, so that now she recognises me as one of the physicians of this hospital; she recognises the nurse, and she distinctly recognises our names when they are made use of. If she is asked what one's

name is, she will say, "You are the doctor;" and if one makes use of a wrong name she will say "No," whereas if the right name be given she says "Yes, that is it," and repeats the name. She knows, also, that she is in an institution for people of disturbed mind. My own idea is that she will have other fits, and that the loss of memory and of mind generally, will be progressive.

The bearings of the convulsive seizure are important. One feels justified in saying that any change that nas taken place is in the right side of the brain, the head being turned to the right shoulder, and there being conjugate deviation to the same side. The unpleasant feeling, as if the hand were falling, and the persistent uneasiness, and an odd feeling in the left arm, all point to some change that has taken place in the right half of the brain, but whether one is to look upon this as some cortical change, some effusion into the membranes, or some degenerative change affecting perhaps the right thalamus opticus, I will leave others to guess.

During the third week of January some friends came to tell her that her husband had died, and asked me whether it would be safe or well to convey that information to her in her present mental state. I told them that I thought it was a matter of perfect indifference, as the impression made by their news would be lost as soon as they had left. The friends saw her, and told her, and for a moment she seemed overwhelmed with grief, but before they had time to soothe her, she was astonished that she had been crying, and wondered what it had all been about; and although a second narration of the information produced a second emotional disturbance, again she passed into a condition of perfect indifference. This intelligence was repeated to her by me from day to day, but I always found that she had forgotten the details, and almost entirely the whole story. The only evidence that she had not entirely forgotten was the ease with which she received the news after it had been frequently repeated. She would even say, "I hear. I have heard something about my husband;" and if I said, "Have you heard that he is dead?" she would say, "Well, I think I have."

Besides the observations that I have already narrated, it would be well for me to mention some other facts, showing that her powers of association of ideas still exist, and that a certain large number of fundamental facts and acquisitions of her education remain much as they were in health. Her

knowledge and powers of using the multiplication table are now as good as they were before. Her ability to read, her ability to define an object, to name anything that is shown to her, to recognise anything that is named in her presence, are all complete, but the memory of a thing read is no more persistent than the memory of a thing narrated. I got her on one or two occasions to read paragraphs from books, and then asked her what she had read. She remembered the last word or two of the sentence, and once the powers of association came out, so that she linked several associated words, as far as sound was concerned, with the last word read. Her memory of music is as good as her memory of words, and she can not only recognise notes by ear and by sight but she can play from memory.

So much, then, for the case. Next, as to the propriety of keeping such an one in an asylum. I suppose such a patient might just as well have been cared for in a general hospital, but for the fact that the physicians of a general hospital would wonder what they had to treat in a person as healthy as this one apparently is ; and though her bodily health appears so good, and though there are no delusions, yet one cannot consider that an individual whose impressions are no more persistent than a shadow should be accounted responsible for her actions, or could be safely left at large to be the prey of the stronger. I treat her as a case of progressive dementia, and shall look for the pathology in something allied to general paralysis, or else post-apoplectic changes.

Mental Symptoms, Precursors of an Attack of Apoplexy. By Dr. Geo. H. Savage.

In an asylum one not uncommonly sees cases of weak-mindedness consequent on apoplectic fits, but it is not very common for one to have an opportunity of watching the effects of mental disorganization associated with changes which ultimately lead to apoplexy. In the subjoined case I had an opportunity of seeing constantly for some months a gentleman who finally died with severe apoplectic fits. He was a man whom I had known for years, and therefore I was better able to judge of any intellectual and other change which occurred in him. He was married, and 55 years of age, of a gouty habit, one who had lived well, eaten largely,

and enjoyed life, but had never been intemperate. He had never suffered from any severe constitutional disease, and up to the last year of his life had been remarkable for his constant work and general ability—a man of considerably more than the usual amount of intellectual force and inventiveness. When first called to see him he was suffering from sleeplessness, and some neuralgic pains, fixing themselves chiefly in his eye-balls, so that he tried various kinds of spectacles, and consulted many medical men, because he thought there was some trouble associated with his eyes. I was unable to make out any hallucinations of any kind at that time, his one complaint being that of persistent sleeplessness. About the same time he became irritable, and his servants were constantly being changed. He was unable to keep his coachman, and therefore suppressed his carriage. He became emotional, and his memory failed. After these symptoms had existed for some weeks, the sleeplessness continuing, hallucinations of hearing became marked, so that on several occasions he got up at night, believing a bell had rung, and his wife was unable to persuade him that no bell had sounded at all. He became troublesome in consequence of these hallucinations, which troubled him most at night in the way of bell-ringing; but during the day he had other annoyances, which he said were due to his unusual keenness of hearing, so that he declared that he could hear his servants in the kitchen talking, this being impossible. He was recommended for these symptoms to try a change, and he went down to the Isle of Wight, where for a time he seemed better. He always seemed benefited during a change, but very rapidly relapsed on his return home. On one or two railway journeys he caused annoyance and trouble to his travelling companion by the worry he made because he fancied he heard a Westinghouse break attached to the railway carriage. He stopped at each of the stations on the line, and demanded to see the station-master, whom he told that he would not have the Westinghouse break fixed on to the wheel of his carriage while it was in rapid motion. Nothing would persuade him but that some break was attached to his carriage, and was causing a most unpleasant jarring sound. When his companion told him that no such sound was audible, he became angered at contradiction, and prostrated himself on the floor to listen to it the more readily. Change, with some rest, and talks about the possibility of its being due to hallucination, did him good for a time. He had a change to the

sea-side, but after this, the sleep being rather better, and he rather less emotional and irritable, he became loquacious, and excessively fond of talking of his own worries and ailments, his memory remaining weak. He now developed hallucinations of smell, and became a complete nuisance to all his family and friends; he would accept none of their statements that these stinks were subjective, but said that there was always some smell of smoke, and that he believed that in his household they were constantly cooking and burning what they were cooking, and it was a disgrace that this should be allowed to take place. He said it was not only his nose that was affected, but also his eyes, and that his eyes smarted and were uneasy in consequence of this smell. At one time he was so convinced about these smells being real, that he even abused friends into whose houses he went for having the same want of method in cooking that he found in his own house, and had almost got the idea that there was a general conspiracy to annoy and worry him. At times these sensations varied, so that besides those of smoke and cooking, he also had smells as from drains. During the whole of this time he was losing flesh, and becoming weaker. The symptoms kept very much in the condition which I have last described, till one day he had an apoplectic fit, affecting the left side. The convulsions were extremely severe. He never regained consciousness, but died within a week.

So far, then, we have seen that before the final breaking down of an artery there had been bad nutrition of his brain. Probably there had been some gouty atheroma about the arteries at the base. It had impaired the circulation through the brain, and thereby impeded nutrition; and as a result these hallucinations had occurred one by one. Each of them might be looked upon in the light of a pain to the sense. He was thus affected by a simple pain in the eyes, by bell-ringing, clanging, and rubbing noises in the ears, by a feeling of smoke and fusty smells, as affecting the nose—all painful sense-impressions, comparable, to my mind, one with another.

OCCASIONAL NOTES OF THE QUARTER.

The Punishment of the Insane.

Punishment is the positive infliction of suffering as a righteous result of wrong-doing, and as a deterrent from its repetition. But the wrong-doing of the insane is the result of their malady, which produces it either directly through delusion, or indirectly by perverting their moral sense and relaxing their self-control.

There must therefore be a broad and absolute distinction between our treatment of criminals and our treatment of the insane, although the line between crime and insanity may often be difficult to draw. Better that some criminals should escape punishment under the shelter of insanity than that one insane person should be dealt with as a criminal.

This principle has long seemed to be universally accepted, and therefore it is startling to be told, as we have lately been, that nothing could be more absurd, and that the insane ought to be punished for their good! We had imagined that the punishment of the insane for their good had been tried sadly too long already, and that the records of the trial were dark and shameful; but it is now declared that when ordinary methods fail to induce a patient to work, the infliction of punishment is imperatively demanded in his own interest.

The insane person, we are told, should then be paralysed and terrified by the hypodermic injection of hyoscyamine, or should be compelled—with the stomach pump by preference—to swallow disgusting mixtures, or should be shocked by plunge or shower baths, or should be disfigured by cropping the hair from the head and face, or should be degraded by ragged clothing, or should be burdened by heavy weights attached to his body. These things—and it is said they are infallible—are to be done to a poor lunatic, when he is obstinately idle, in order to compel him to work!

Such a course, whatever the motive, is utterly unjustifiable, and cannot be too strongly repudiated. It is an outrage on all that is enlightened and humane in the treatment of the insane.

If idle lunatics are to be thus treated, what shall be the doom of the dangerous and destructive? Surely the lash would be as justifiable, and more merciful.

We cannot believe that these things are really practised in any asylum to-day. We are glad to find that Dr. Cameron, whose article in the last number of the Journal has occasioned these remarks, does himself repudiate them by saying in his Letter, which will be found in our Correspondence, "Of course a lunatic asylum is not a place in which such measures can properly be practised, and it is almost need-

less to say that they are not practised in this, or so far as I am aware, in other asylums." We certainly think that so far from being almost needless, it was very needful on Dr. Cameron's part to make this avowal. While, however, we gladly accept it, we think the general principles advocated in his article are virtually retained in his Letter. The insane are still to be "frightened" into good behaviour.

The avowal of such principles sounds like a dismal echo from last century, and is strangely out of harmony with a time when reformers are telling us that walled airing-courts and locked doors are remnants of barbarism and emblems of harshness and subjection.

Can it be possible that this is but another illustration of the familiar truth that extremes meet?

The essential elements of the modern treatment of the insane, unfortunately named the "Non-restraint" system, because restraint was the root principle of former treatment, are kindly care and sympathy, careful medical treatment, as much freedom as possible, and as little as practicable of the feeling or the appearance of restraint, safety being the only limit of freedom.

This is surely wide enough, but it does not satisfy modern reformers. From what we are told now-a-days it would appear that special dwellings for the insane are quite needless, that medical treatment is obsolete and useless, and that the insane only require to be treated like other men, and to be kept always at work. Logically, the next step would seem to be the discovery that the patience and charity with which we have been regarding the misdeeds of lunatics is but amiable weakness, and that the insane are so like other men that they should be punished for their good.

If it be said that there are some patients in asylums who are really not insane, and therefore properly punishable for their misdoings, the obvious reply is that they have no right to be there, and ought to be discharged. The idleness, irritability, and turbulence of insane persons are truly part of their malady, and it would be as reasonable and humane to punish an epileptic for manifesting physical convulsions as to punish a lunatic for mental moods and explosions, which are equally the result of disease.

It is quite true that crime and insanity are often strangely mixed, and that some persons, especially young women, almost appear to be sometimes on the one side and sometimes on the other of the narrow line which, in their case, divides them. But these are the very cases in which punishment seems to harden rather than to benefit, and in which it does nothing to develop self-control, or promote recovery. The records of every prison show that punishment, however frequent and severe, is quite futile in such persons, and utterly fails to deter from wrong-doing. Thus the only cases which, in an asylum, might seem to afford the shadow of a justification for punishment, are just those in which it has been abundantly proved that punishment is worse than useless.

To punish by means of drugs is the saddest punishment of all. It is a degradation of medicine, and a double wrong to the patient. A whip scores the skin, and the treadmill tires the limbs; but to poison the brain by hyoscyamine, as a mere punishment, till the lunatic is paralysed and comatose, and can afterwards recall the condition only with abject terror, is a cruel injury. Such means might, perhaps, be justifiable in dealing with an infuriated animal, but to expect by punishment like this to restore reason, self-respect, and self-control to a human soul, is a monstrous and melancholy mistake.

That the indulgences and rewards extended to the orderly and industrious inmates of an asylum should be withheld from those who will not use what self-control remains to them, is entirely right, and is a valuable means of inducing them to amend their ways. A special party or excursion, an extra supply of tobacco, a visit to the circus, a day with friends, and similar privileges, are proper rewards of industry, and may be rightly withheld from those who could easily gain them if they liked, but refuse to do so. It is simply a misuse of words to call this punishment.

These rewards, as a rule, do not go far enough, and the payment principle, which has worked so successfully in some places, might well be extended. For many it may be unnecessary, but with some it would do more to promote regular industry, and therefore recovery and good conduct, than any other means. Of course the principle must be applied to all, and although the cost would be considerable, the results would justify it. It is little to be wondered at that many patients work listlessly when they get so little fruit of their labours, and it is by increasing rewards, not by devising punishments, that industry is to be fostered. The mere knowledge on the part of a patient that he has something to his credit in the Asylum Savings' Bank, which he could spend as he pleased, or could present to his boy, when he visits him on his birthday, makes him a more orderly, industrious, and self-respecting member of the community, and thus benefits both himself and others.

If the discussion of the subject of the Punishment of the Insane leads to a fuller recognition of the all-important one of providing them with Employment, we shall have no reason to regret that our pages have been the channel of the expression of views which, to say the least, are liable to be misconstrued, as advocating practices against which we have felt it absolutely incumbent upon us to enter our earnest and emphatic protest.

Idleness is proverbially injurious alike to body and mind, and use is essential to the health of both. The idleness of insane folk is generally a symptom of their malady, the result of apathy or mental preoccupation; but it may, on the other hand, be associated with actual laziness or perversity, since insanity does not banish, and may even intensify, the moral weaknesses of humanity.

This apathy and preoccupation at once manifest and aggravate the

malady; and the great aim of treatment is to awaken the mind from its apathy, and to turn the thoughts into new and healthy directions. With this object the patient is surrounded with whatever is likely to attract and interest; he is made to feel that he is among friends who care for him, and wish to help him; and, above all, he is induced to engage in some active employment, if possible in the open-air. By the attention which the occupation requires, and by the interest it excites, the man ceases to be self-centred and self-absorbed, the insane ideas which possessed him are replaced by normal thoughts and feelings, and there is gradually established the healthy and formerly familiar habit of taking an active interest and an active share in the daily duties of life. Simultaneously, sleep is promoted, the general health improves, and thus occupation becomes as welcome as it is beneficial.

Recovery very often begins from the time when the habit of daily occupation is re-established, and it is matter of constant observation that patients whose lives have been idle and useless, and to whom all employment has seemed drudgery and degradation, are far less likely to recover from an attack of insanity than those who have habitually known the satisfaction of daily work well done.

Employment being thus of the utmost value in the treatment of the insane, it is most desirable to provide as many varieties of occupation as possible, and to discover the form and manner of it which has most attraction for each.

Some patients like their usual avocation, others prefer something wholly different; some like to work with a party at a common employment, others prefer to work by themselves, allowing no participation and accepting no assistance. Some will not work unless they appreciate and approve the object, others are equal only to the mechanical monotony of a pump or a wheelbarrow; some work from gratitude, others to curry favour; some work fitfully, others with systematic regularity; some work cheerfully, and even beyond their strength, so that they need to be restrained; others are skulkers and eye-servants, only working lest they forfeit the rewards of industry.

Not for curable patients only, but likewise for those whose recovery cannot be expected, regular employment is of the greatest value. It lessens excitement by turning the activities into a regular and useful channel; it banishes *ennui* by giving life an interest and an object, it develops self-respect and self-control, by teaching the man that he is good for something; and it promotes health, contentment, and happiness, as nothing else can.

The benefit to the patient is the great object of work, and this should determine both the kind of employment and the time spent at it. The economic value of the work, although an important, should be quite a secondary consideration.

Asylum attendants are apt to think more of the work to be done than of the gain to the workers, and they need to be constantly

reminded that to get a little work done by an excited, troublesome, or idle patient, is far more important than a whole day's labour of their steadiest worker.

The universal rule that example is better than precept holds true in the employment of the insane, and the example of others is the most potent teacher. Hence the attendant should work with his patients, not merely order them to work, and the prevailing tone of an asylum—its atmosphere, ever present and all-pervading—should be one of active industry. It should be deemed a matter of course that every one is employed, and a new patient who is capable of employment should not be asked if he will work, but should be placed at once, and as if any other course were inconceivable, at the work which seems best for him. It is wonderful how readily the weakened mind yields to the influence of example, and how naturally a patient accepts the prevailing tone of his new abode.

He is, of course, further stimulated by arguments addressed to his understanding and self-interest, especially by the great argument that work is the way to recovery and discharge; and special inducements and indulgences are offered to him as the reward of industry.

In a word—and this is the sum of all the moral treatment of the insane—the appeal is to all that is sane in the man to conquer and correct all that is insane in him.

However idle or rebellious the patient may prove, there is, we assert, no possible place or excuse for punishment in dealing with him.

County Board Bill and Pensions of Medical Officers of Asylums.

We direct the attention of our readers to the Correspondence of the Parliamentary and Pensions Committee of the Association with the First Lord of the Treasury, the Commissioners in Lunacy, and the President of the Local Government Board, which will be found in "Notes and News."

We stated in our last number (see p. 652) that at a meeting of the Parliamentary and Pensions Committee held in London, Nov. 29, 1882, a sub-committee was appointed to carry out their views and address a letter to the First Lord of the Treasury suggesting that in the Government Bill said to be in preparation in regard to County Boards, certain changes should be made in reference to the payment of salaries and pensions of medical superintendents. The result was the correspondence above referred to; and although the Government has deferred the introduction of

such Bill, the importance of having taken prompt action in a matter so closely affecting the interests of the Association must be evident. The Association is under great obligation to Dr. Lockhart Robertson for the interest he has taken and the efficient help he has rendered in this question.

PART II.—REVIEWS.

L'Hérédité Psychologique. By Th. Ribot. Paris: Germer Baillière et Cie. 1882.

The thesis of this book stands or falls with Darwinism. In applying the law of evolution to the explanation of psychological phenomena, the writer adopts the method and many of the facts of Darwin, and corroborates many of the conclusions already suggested or demonstrated by that great thinker. Indeed any one familiar with the writings of Darwin, Herbert Spencer, Galton, Laycock, and others, must already have foreseen that a law which is believed to be universal must of necessity govern mental phenomena. Whilst the Darwinian-believer, as he peruses M. Ribot's book, must constantly feel that he is reading what he already knows and accepts, he cannot avoid being pleased with the manner in which the subject is treated and illustrated.

Adequately to review this book would require an elaborate essay as long, if not longer, than the treatise itself. Under the circumstances this is neither possible nor desirable. The Evolutionist will see in M. Ribot's book much to please him and strengthen him in his views. But whilst he enjoys a rich intellectual feast, others may view the food as poison, a deadly poison capable of shaking belief in revealed religion. It is greatly to be regretted that such doctrines should be considered antagonistic to true religion. M. Ribot deserves much credit for expounding his ideas without unnecessarily wounding religious susceptibilities. Some of his remarks and arguments must shock the ultra-orthodox; but this is inevitable from the nature of the subject, not due to the pugnacity and irreverence of the writer.

The book is divided into three parts: 1st, the facts; 2nd, the laws; 3rd, the consequences. With the first division

all asylum physicians are familiar, or should be, for they possess unusual opportunities for observing heredity in one of its most striking forms, in mental diseases. What is wanting in his own experience he can have supplemented by reading either philosophical works, which view the subject as a whole; or psychological works, which limit the field to mental phenomena, normal and diseased. It may be presumed that every one pretending to culture has read Darwin's works and tried to make something of Herbert Spencer. It may therefore be presumed that every English reader is familiar with part 1. So with part 2, there is nothing novel; but an excellent epitome of our present knowledge.

When the consequences of Heredity are discussed in part 3, we come to some questions which do not appear capable of solution at present, such as the relation of heredity and free-will. It cannot be doubted, however, that good follows from the efforts made to arrive at conclusions, and if we trust in evolution, we can believe that what is impossible for us in 1883 may be quite possible in 2883.

It is specially interesting that M. Ribot and Dr. Arthur Mitchell should arrive at a similar conclusion, though starting from very different premises. In his essay on Civilisation Dr. Mitchell contends, and correctly, that civilisation and nature are antagonistic. Nature condemns the weak to destruction; civilisation preserves them, and makes good use of them too. Viewing the question from a different and more limited aspect, M. Ribot finds that heredity, a portion of the great law of nature, and civilisation are also antagonistic.

Early in the discussion we have an exceedingly good definition and discussion of instinct, and it is very properly asked, if some so-called primary instincts are acquired, why may not all of them be so? Many other points occur which might be noticed fully, were any special object to be gained by so doing. For instance the attack on Lucas's law of inneity. The refutation is complete, but we thought that the hypothesis had long ago received its quietus. But we prefer to recommend the book to our readers. It is delightful reading. The style is clear; the points well put, and the discussions not unnecessarily protracted. Even to one tolerably familiar with the literature of evolution the work will be welcome; an important section is ably and fully discussed. To any one, if such there be, as yet

ignorant of the great topics handled by Darwin and his apostles, this book will be useful as an introduction. Having mastered what is here offered him he will doubtless have a taste excited for more, and he will be able to view the ordinary phenomena of insanity in a much more philosophical and satisfactory way. He will see that, in spite of much that is inexplicable, there are great laws of nature at work *now;* that we do not yet see the end, but that nature may have a destiny for man in this world far higher than it has entered into the heart of man to conceive.

T. W. McD.

Female Education, from a Medical Point of View. By T. S. Clouston, M.D. Being Two Lectures delivered at the Philosophical Institution, Edinburgh, Nov., 1882.

"I think we have some business here—a little!" as Meg's eyes said, or seemed to say, to Trotty Veck. Yes, medical psychologists have some business with Female Education—a little! and it is their own fault if they do not make their business known. None ought to know better than they the capacity for education possessed by the female sex, the peculiar dangers attendant upon her mental labour, and the precautions needed to protect her from injury. Dr. Clouston could not have chosen a more practically useful subject for a popular lecture, and well has he succeeded in bringing into relief the evil done at the present day by educators; and the necessity for checking it promptly and effectively. There is nothing approaching to exaggeration in the statements made. There is, as there ought to be, a constant appeal to the physiology of woman, couched in language which cannot be misunderstood, but which is at the same time suited for a popular audience. All life, while enshrined in a bodily structure, has throughout its existence a limit in its development, beyond which it cannot be forced by human pressure; woman's mental and bodily life are no exceptions to Nature's inexorable rule—this must be impressed upon the pedagogue as the fundamental law which he cannot break, although alas! in attempting to ignore it, he can break on the wheel the delicate vessel which he is endeavouring to mould. There is something terrible in the thought of the power thus wielded by the potter. People have learnt that the growth of the human mind cannot be forced back

without destruction, but in the rebound from this dismal error they have committed the opposite mistake, and have again exemplified

"The falsehood of extremes."

They have sought to force the mind forward till it has burst from its own plethory.

Vital Energy again has its necessary limits. It cannot be employed to excess in one direction without being weakened in another. If the mental powers are cultivated disproportionately, the muscles, bones, and general nutrition suffer, and this is especially true of woman's development during the period of adolescence from 13 to 25.

Inseparable from this law is the truth that in one term of human existence the vital force may be consumed which should have extended over several. The oil of the lamp of the foolish virgin has gone out at twenty-five. We are wrong; we do her an injustice; the folly is not hers, but theirs by whom her lamp has been trimmed and lighted.

The law so obviously true of the individual is also true, we may well suppose, as Dr. Clouston asserts it to be, of a generation. Indeed the one seems to follow from the other. Excessive pressure put upon one generation lessens thereby the force available for the next. We should not be disposed to say that so much force is alloted to a generation, and that the succeeding one has much or little according to the amount expended, that is to say in the sense that so many volumes of vital energy are meted out, as so many pounds of meat are weighed and distributed for the day's dietary in a pauper asylum. It is true only in the sense that individuals transmit less force to their descendants if they have exhausted their own energies before their offspring are born. The greater the number of individuals who do so, the worse for the aggregate generation which succeeds them.

Most definitely and specially important of all, however, in regard to "Female Education" is the adolescent era of her life. Its importance must be constantly kept before the educator. It is well described by the lecturer:—

> Then bodily energies of a new kind begin to arise, vast tracts of brain quite unused before are brought into active exercise. The growth assumes a different direction and type, awkwardness of movement becomes possible, and on the other hand a grace never before attainable can be acquired. . . . For the first time distinct individual

mental peculiarities show themselves. The affective portion of the mental nature begins to assume altogether new forms, and to acquire a new power. Literature and poetry begin to be understood in a vague way, and the latter often becomes a passion. The imagination becomes strengthened, and is directed into different channels from before. The sense of right and wrong and of duty becomes then more active. Morality in a real sense is possible. A sense of the seriousness and responsibility of life may be said then to awaken for the first time, the knowledge of good and evil is acquired. The religious instinct arises then for the first time in any power. Modesty and diffidence in certain circumstances are for the first time seen. The emotional nature acquires depth, and tenderness appears. The real events and possibilities of the future are reflected in vague and dreamlike emotions and longings that have much bliss in them, but not a little, too, of seriousness and difficulty. The adolescent feels instinctively that she has now entered a new country, the face of which she does not know, but which may be full of good and happiness to her. The reasoning faculty acquires more backbone, but is as yet the slave of the instincts and emotions. A conception of an ideal in anything is then attainable, and the ideal is very apt to take the place of the real.

Dr. Clouston impresses on his audience the necessity of bodily development corresponding to all these mental changes, and reaches one of the practical points he doubtless had in view in giving his addresses, that "the girl student who has concentrated all her force on cramming book knowledge, neglecting her bodily requirements, is apt to suffer the effects of an inharmonious and therefore an unhealthy mental and bodily constitution." "There is no time or place," as he forcibly puts it, "of organic repentance provided by nature for the sins of the schoolmaster," and he asks, "Why should we spoil a good mother by making an ordinary grammarian?" He does not think that many great men have had highly educated mothers. Had they had such—that is to say women who when at school "had worked in learning book knowledge for eight or ten hours a day in a sitting posture, stimulated by competition all that time, and had ended at twenty-one in being first prizemen," their sons would have been distorted or deformed, instead of being the lights of the world. Speaking of school work, the lecturer says:—

As the result of my inquiries among pupils and teachers in the advanced schools for young ladies, I find that about five or six hours of actual school work, and from two to four hours of prepara-

tion at home, may be taken as the time that is each day occupied in education. Many of the ambitious, clever girls, in order to take high places and prizes, work for longer than the time I have mentioned in preparing at home, especially if the musical practising is taken into account. At certain times of the year, before examinations, some of these girls will work twelve to fourteen hours a day, and take no exercise to speak of, and but little fresh air.

Of the pupil teachers in Board Schools Dr. Clouston speaks as having in some instances simply continuous work all day, their food being far from abundant. "In both these cases—the scholars in the higher class of girls' school and the female pupil teachers—the range of subjects to be learned at the same time is often enormous. Six, seven, eight, nine, and even ten different subjects, all being learned at once, is no uncommon thing!" although, in the best schools, this state of things is now being corrected.

Dr. Clouston observes that as melancholy a "Song of the School" could be sung as Hood's celebrated "Song of the Shirt." We agree with him, and perhaps a parody somewhat after this fashion might help to arouse public feeling in the cause of educational reform:—

THE SONG OF THE SCHOOL.

With features weary and worn,
With eyelids heavy and red,
A school-girl sat by her book-laden desk,
Painfully grasping her head.
Write—write—write,
Without rhyme or reason or rule,
And still, oh the pitiful, pitiful, sight!
She sang the "Song of the School."

"Learn—learn—learn,
Till the brain begins to swim;
Learn—learn—learn,
Till the eyes are heavy and dim.
With grammar, figures, and dates,
My burden'd memory teems
Till full of my books I cannot sleep,
Or work at them still in my dreams.

"O! men with sisters dear!
O! men with mothers and wives!
It is not school-books you are wearing out,
But school-girls' brains and lives.
Lesson on lesson and lesson,
Till they make the scholar a fool,
Treading at once with a double step
The path of the Grave and the School.

"But why do I talk of Death?
My own face so pale has grown
I hardly fear his terrible shape,
It seems so like my own—
It seems so like my own,
Because of my want of sleep;
Ah! that common-sense should be so dear,
And the health of girls so cheap!

"Learn—learn—learn—
No time for a romp or play,
And what is the gain? A lot of marks
And a public prize they say,
In the oak-roof'd hall with its polished floor,
And a noble lord in the chair.
When on its walls my shadow falls,
'Twill be scarcely visible there.

"Cram—cram—cram,
From dreary chime to chime;
Cram—cram—cram,
Like turkeys for Christmas time.
My task-book thumb'd and thumb'd,
Recitations line upon line,
Till the heart is sick and the brain benumb'd,
And aches the weary spine.

"Oh! but to breathe the breath
Of the cowslip and primrose sweet,
Instead of this stifling room,
Or the murky air of the street,
For only one short hour
To feel as I used to feel,
Before I knew what a headache was,
Or my feet to be cold as steel."

With features weary and worn,
With eyelids heavy and red,
A school girl sat by her book-laden desk,
Painfully grasping her head.
Write—write—write,
Without rhyme or reason or rule,
And still, oh the pitiful, pitiful, sight!
Would that parent and mistress might read it aright!
She sang this "Song of the School."

Dr. Clouston draws attention to "one most unaccountable want" in city schools for girls—the absence of a playground. "A girls' school without a playground, a gymnasium, or public park near, I look on as a garden without sunshine, or a boat with one oar." The training of the educator has not taught him "to notice or know the meaning of narrow chests, or great thinness or stooping shoulders, want of appetite, headaches," &c. We are not in the least surprised to find Dr. Clouston writing—

It is enough to make one despair of the inherent reasonableness of human nature to think of the amount of time and toil that are given in Edinburgh to the learning of things for which there is no inherent capacity in the learners; things that go against the intellectual grain, that are learnt poorly and with much difficulty, against nature, and are forgotten at once in accordance with nature's laws. Think of the girls that toil at music who have no inherent musical capacity, of the time that is taken in committing to memory rules of grammar, and doing parsing, the real meaning of which the girls' brains could not comprehend if they lived till they were ninety; of the labour and sorrow given to acquire languages, by girls whom nature meant only to speak their mother tongue; of the futile attempts to take those past the rule of three whom nature intended to stop at simple division. The sad thing is that we all know each of those could do something or other very well, and to some purpose in after life, if we could only hit on what it is.

The results of overwork and ill-ventilated schoolrooms, and want of exercise, are rapidly treated of by the lecturer under the heads of anæmia, nervousness, headaches and neuralgias, hysteria, and insanity, on which he observes :—

I could adduce many lamentable examples from my own experience of most brilliant school careers ending in insanity. If I had written down the fierce apostrophe of a young lady of twenty on her entry into the asylum at Morningside at the end of a school career of unexampled success, the reading of it would do more to frighten the ambitious parents of such children from hastening their daughters forward at school too fast than all the scientific protests we doctors can make. She was well aware of the cause of her illness, and with passionate eloquence enumerated the consequences of her losing her reason.

As Dr. Clouston says in concluding his lectures, the question of the future is, how can we get, and how much can we get, of intelligence and book culture, combined with health?

The principles laid down in these addresses, and the practical good sense by which they are permeated, will do at least something towards helping parents and teachers to answer this question, and we heartily hope the pamphlet will be widely circulated among those principally concerned in Education.

A Practical Treatise on Electro-Diagnosis in Diseases of the Nervous System. By Hughes Bennett. H. K. Lewis, 1882.

During the last few years electricity has assumed a vast importance in every relationship of life, and it seems as if we were passing from an age of steam into an age of electricity. Medical men generally find it hard to keep abreast with the special developments of science, even in their practical relationships with medicine. They therefore feel sincerely grateful to anyone who, with sufficient knowledge, has also enough patience and power of application to sum up for them the facts and principles by which their treatment should be guided.

One can with confidence recommend to the attention of the profession this small book, written by Dr. Hughes Bennett. It is simple and yet trustworthy. It takes nothing for granted. It gives a complete summary of the relations of electricity to the human body in health and in disease.

The book begins with some very well arranged plates, exhibiting the motor points and other noteworthy indicators which must be studied and observed by any one wishing to make use of electricity. This work points out how the electric batteries may and should be properly used—not as they have been hitherto, mere toys, to amuse both doctor and patient—or to be used by the former very much as the shower-bath has been, as a means of terrorising, or, as the doctor would probably say, of "rousing" his patient from a state of lethargy into one of greater nervous energy.

A short practical introduction follows, pointing out the uses of electricity as a physical agent in the diseases of the nervous system. Then a description of the necessary apparatus is given, with information regarding the best general accessories, such as the galvanometer and the combined electrodes. In Chapter III there is a *résumé* of the anatomical knowledge necessary for electrical diagnosis, followed by a description of the methods of applying electricity in diagnosis; and after this are described electrical reactions in health. Experimental researches follow, and descriptions are given of the anatomical changes resulting from injury to nervous tissues, and the effects of such injuries upon the electrical reactions. In describing all such injuries, and also in examining generally into the condition of the nervous system, Dr. Bennett proceeds from a general to a

particular investigation, so that the spinal cord and its reactions are examined first, then the motor nerve, and later, the voluntary muscles. These may be tried respectively by Faradism or galvanism, and useful tables in parallel columns are given, pointing out the reactions before and after injuries. Thus, on page 62, a table is given showing the relation which exists between the anatomical changes in nerve and muscle, and the electrical reactions, in the case of serious injury to a nerve. The electrical reactions which occur generally in types of paralysis are given, so that we have a description of the normal reactions in paralysis, and an investigation of the quantitative changes, such as simple increase as seen at one time, or simple diminution at another. The effects of interrupting the currents in forms of paralysis are also pointed out.

After the practical investigation, the theory of electrical reactions in disease is discussed. With chapter VIII we come to electrical reactions in special paralyses, as illustrated by cases; and here we have paralysis from disease of the brain well exemplified, cases of hemiplegia, probably hæmorrhagic, paralysis, probably embolic, pointing to normal reactions in some, quantitative increase in others, and quantitative decrease in others. In the same way, reactions which occur in paralysis from diseases of the spinal cord, are considered—locomotor ataxy, spastic paralysis, multiple sclerosis, paralysis agitans, and the like. Progressive muscular atrophy provides a good number of illustrative cases; in fact, it is hard to find any variety of paralysis that is not fully and carefully discussed in its electrical relations. Probably, in time, investigation of this kind will be made more generally, and already one has heard of some extremely important diagnoses which have been made by means of the electric current. Dr. Hughes Bennett not only discusses the reactions as they occur in real disease, *i.e.*, in what are more commonly called coarse (?) nervous disease, but also the modes of testing in hysterical cases and in malingerers.

In Chapter IX we have the conclusion, and a brief statement of the practical utility of electro-diagnosis. As Dr. Bennett properly says, "like all other methods of physical diagnosis, electricity must not be depended on alone as the sole means by which we are to arrive at a just conclusion in investigating the nature of disease. It is only one of the aids which we employ, but one which, in conjunction with other facts and observations, is a powerful auxiliary."

Those who wish to make use of this powerful auxiliary cannot do better than to get Dr. Hughes Bennett's handy little volume.

On the Causation of Sleep. By Dr. Cappie. 2nd Edit. Re-written. James Thin, Edinburgh, 1882. 8vo.

In this book we are presented with a somewhat startling view of the causation of sleep, based, as the author himself states, solely on analogy, and conclusions deduced from one solitary fact of scientific experiment. The author's peculiar method of investigating an interesting and complex physiological phenomenon, such as sleep, leads him not only to neglect the ordinary precautions which the experimental method demands, but also to omit all notice of the progress which has been made in the physiology of the circulation during the last fifty years. It must be confessed that the resuscitation of the idea of the capillary circulation, after having been laid to rest by Majendie and Poiseuille ("Müller's Archiv.," 1834, p. 365), is the last thing we should have expected to find in a modern physiological treatise; yet this is what our author would have us believe to be the prime agent in the causation of sleep. In brief, his theory may be summed up as resting on two props, the first being this chimæra of the capillary circulation, and the second being the well-established fact that increase of the intracranial pressure produces unconsciousness.

The superstructure raised upon this untrustworthy foundation is as follows:—The degree of cerebral activity is supposed to determine changes of force in the capillary circulation of the brain; consequently, supposing the cerebral processes to become enfeebled, the capillary circulation grows weaker. Under these circumstances, the vis a tergo being diminished, the author believes that the veins of the pia mater become distended from the back flow of blood caused by the atmospheric pressure on the large veins in the neck, and it is the compression (!) exerted on the cortex of the brain by these distended veins that produces sleep.

We need not trouble to notice the share which the author supposes the capillary circulation to take in the production of sleep, but the second point, viz., the relationship of unconsciousness to sleep, is one of wide and important interest.

Sir Henry Holland is quoted in favour of the idea that sleep may pass into coma, and that "the proximate physical conditions are nearly the same in both." Hitherto the most essential point of difference between these two states seems to have been overlooked, viz., that in the case of coma from pressure upon the cerebral cortex we have a condition almost instantly produced in an active brain, while, on the other hand, the condition of sleep is specially characterised by a gradual onset, the nerve centres being fatigued. It is impossible that these two conditions can be considered similar in any way except that in both there is unconsciousness, this being brought about in the first case by actual mechanical interference with the vibrations of the nerve-energy (vis nervosa) of the cerebral corpuscles and commissural fibres, while in the second we have evidently to do with a complex condition, in which, perhaps, most of the cerebral structures comprised in the encephalon take part. This leads us to the consideration of the various theories which have been promulgated in attempting to explain the sleeping state.

The chief of these may be named the circulation theory and the chemical theory respectively. The former is based mainly on the original experiments of Mr. Durham, repeated by Hammond and others, and may be expressed as a primary anæmia of the brain, the result of which is defective action of the cerebral corpuscles, these passing into a condition of rest. Granted the primary anæmia, the inference is perfectly consistent with the well-known fact that partial anæmia of the cerebral centres, produced by external compression or ligation of the carotid arteries, is followed by defective action of the cortical corpuscles, as evidenced by the resulting unconsciousness. The further experimental proof required to establish the last conclusion is to be found in the well-known Leipsic case (Strümpell, "Deutsche. f. Klin. Med." xxii.), where removal of all possible causes of activity (namely, external stimuli) of the cerebral corpuscles was followed by unconsciousness. We may be pardoned for digressing further to point out the extreme importance of this unique case, being, as it is, the only recorded complete experimental demonstration of the fact that consciousness is entirely dependent upon the action of external stimuli on the cerebral cortex.

In considering the circulation theory it is obvious that we are still as far from the truth, since under these circum-

stances the causation of sleep will be synonymous with the causation of this primary anæmia, no explanation of which has yet been given.

The chemical theory suggests that sleep follows from the accumulation of effete products in the whole system, and especially in the nerve centres, while it also embraces the idea that the chemico-physical changes in the cerebral corpuscles grow weaker from fatigue as well as this condition.

It is not stretching analogy too far to say that that condition of the brain which leads to sleep is similar to the state of a muscle after severe work, and that, just as in the latter case the contractions grow feebler as the excretory products accumulate, so in the brain the supply of nerve-energy gradually fails as the nerve corpuscles become more and more hampered in their action from the same cause. But experiment has shown that exactly in proportion to the depth of sleep there is marked anæmia of the cerebral cortex, a condition which cannot be supposed to result directly from the aggregation of fatigue products in the cerebral corpuscles, since the wide changes in the calibre of the vessels could only be produced by local stimulation or through the agency of the vaso-motor system. Unfortunately the known facts concerning the intracranial vaso-motor mechanisms are so few (and not very concordant) that only extremely theoretic conclusions of little value can be drawn from them. It is possible (to take the analogous case of muscle again) that the same mechanism which determines vascular dilatation in a muscle in activity and the converse in a muscle at rest also acts in the case of the cerebral circulation. Moreover, there is no reason *a priori* why there should not be local vaso-motor centres in the brain just as in the other viscera and tissues, and it is conceivable that such vaso-motor centres may be influenced by the state of the tissues, and so give rise to changes in the circulation. This theoretic view suggests the obvious conclusion that the phenomenon of sleep is not brought about by changes in only one of the elements of the cerebral structure with unimportant secondary changes in the remainder, but that both the nerve tissues proper (*i.e.*, the corpuscles and connecting fibres) and the vessels enter together into a condition of rest. If either of these stands in a causal relation to the other, it is evident that we should give the greater importance to the nerve tissue. But it is idle to speculate further in the absence of experimental facts additional to those

above quoted, and we can only express the hope that future papers on this subject will contain more observation and less imagination.

We notice at the end of the book letters from Professor Turner, the late Sir Robert Christison, and the late Dr. John Brown, conveying their appreciation of Dr. Cappie's hypothesis. From the survivor, whose opinion carries with it so much weight, we should be glad to know how he reconciles Dr. Cappie's views with accepted physiological teaching.

PART III.—PSYCHOLOGICAL RETROSPECT.

1. *Retrospect of Mental Philosophy.*

By B. F. C. Costelloe, B.Sc. and M.A. Glasgow.

"Mind," Nos. 26-29 (April, 1882—Jan., 1883).
"Revue Philosophique," Nos. 73-84 (Jan., 1882—Jan., 1883).

During the long period embraced in the present Retrospect, the most important incident that has happened in the philosophical circles of this country is the death of Professor T. H. Green, of Oxford—a man who for many years had been silently acquiring, not only by his power of thinking but by his strong and blameless personal character, a marked position and a unique influence among the leaders of thought in England. His philosophical position would perhaps best be defined by saying that he became the chief of that small, but notable, band of speculative students, centred mainly in Oxford, Glasgow, and Edinburgh, who are reviving the spirit of the systems of Kant and Hegel, in its application to the new scientific, political, and religious problems of the day. His distinguishing characteristics were his modesty and his earnest sense of duty—qualities perhaps not so conspicuous as they might be amongst the better known of modern psychologists. His modesty was such that he never assumed that he had mastered the secret of any writer, until he had bestowed the most extravagant labour and thought in exploring difficulties and obscurities on which the man himself had probably never bestowed a second thought. His earnestness was so thorough that he believed it to be merely his duty to struggle with the fundamental questions of the Sphinx of modern criticism, and find for himself and others not a negative but a constructive answer, no matter what toil and trouble it might cost. For he held that those who contribute, as we all in some way do, to the formation of public opinion upon the vital subjects of life and conduct, are under a terrible responsibility if they mislead their neighbours, or even if they refuse by sloth or vanity or cynicism that healthy guidance which their own attainments would enable them

to give. These remarks are suggested by the fact that the first article of the April number of "Mind" is from Prof. Green's pen. Indeed it is one of the last pieces of work he ever personally sent to press; although we are glad to know that the great Ethical work on which he had long been engaged is left with his philosophical friends in so complete a form that it will be published immediately. The April article is the second of three essays on the question, "Can there be a natural science of man?" of which the third holds the leading place in the July number. The scope of the essays, as well as of the "Prolegomena to Ethics," to which they were in a sense introductory, will be best indicated if we quote a note added in the July number by Prof. Green's literary executor, Mr. A. C. Bradley.

"In these pages Professor Green notices a state of mind common among educated men. They are ready to accept the current notion that the subject-matter of moral science differs in no essential respect from that of the physical sciences, and to consider the acceptance of this notion as a *sine quâ non* of any moral philosophy worth attending to. Yet at the same time they, or the best of them, are greatly affected, through the medium of poetry, by ideas about human life which cannot be reconciled with this notion; and though they cannot in consistency regard such ideas as scientifically true, they practically find in them the expression of their deepest convictions. This state of things really means, however, that their deepest convictions exist only on 'scientific sufferance,' instead of being examined and reduced to a form in which they can be accepted as truth. And the way to such an examination is barred by the fixed idea that there is no essential difference between the moral action of man and the phenomena dealt with by some of the physical sciences."

The second article in the April "Mind" has also to do with Hegel, but it is not from the pen of a believer. It is an extremely keen and amusing criticism of the system by Prof. Wm. James of Harvard, whose writing is to our mind the ablest of all that appears in "Mind." The present attack, however, is made almost comic by the "note" which follows it, and which seems of a piece with the whole; in which Prof. James gravely recites the experiences which he had in the state of nitrous-oxide-gas intoxication. In that condition he says he had a "tremendously exciting sense of an intense metaphysical illumination," the first result of which was "to make peal through me with unutterable power the conviction that Hegelism was true after all." To illustrate it he transcribes a few sentences of those which it seems he *dictated* in the intoxication under the influence of what he oddly calls "a perfect delirium of theoretic rapture." We would seriously advise mental doctors to see to this, for if Prof. James' experiments be verifiable, some odd scientific and psychological deductions may be drawn. The characteristic feature of this state is the "identification of opposites," and Prof. James thinks something like it may probably be a chief part of the temptation to alcoholic

drunkenness also. Here are a few of his transcripts, which will themselves best illustrate what he means :—

> " Reconciliation of opposites : sober, drunk, all the same !
> Good and evil reconciled in a laugh !
> It escapes ! It escapes ! But—what escapes ? WHAT escapes ?
> Emphasis, *em*phasis! there must be some emphasis in order for there to be a phasis.
> No verbiage can give it, because the verbiage is other.
> Incoherent—coherent—same !
> And it fades ! And it's infinite ! *And* it's infinite !
> If it wasn't *going*, why should you hold on to it ?
> Don't you see the difference, don't you see the identity ?
> Constantly opposites united ! "

We would not quote this curious raving, but that Prof. James vouches for it that it is a fair specimen of the result, not only on himself in repeated experiments, but also on everyone else on whom he tried it, of inhaling nitrous oxide, if *not* continued long enough to produce incipient nausea. Perhaps it is only on a metaphysician that such an effect is produced ; but it would be quite worth trying.

The April number contains a very interesting list of reviews, including an inappreciative notice by Dr. Burns Gibson of Father Harper's remarkable volumes on the " Philosophy of the Schoolmen," two excellent notices of Max Müller's " Translation of Kant," and of Dr. Hutchison Stirling's " Textbook to Kant," and a short critique by Mr. Wm. Wallace on Prof. Mayor's " Sketch of Ancient Philosophy from Thales to Cicero." The notes and discussions are also well worth attention. Mr. Edmund Gurney gives us a suggestive paper on " The Passage from Stimulus to Sensation," followed by one on the " Localization of Brain Functions " by the Editor, and one by Mr. James Sully on " Horwicz's Study of the Cœnæsthesis," in the " Vierteljahrsschrift für Philosophie." The last, however, is really only a summary of points, and our readers would do well to consult rather the original article, which is of much importance and ability.

The July " Mind " opens, as already noticed, with Prof. Green ; but it contains besides an unusually long list of specially psychological articles and reviews. Mr. James Sully discourses on " Versatility " at some length, in a chatty but not very profound fashion. He rightly notices the connection of the faculty and its development in youth with the problems of the Examination System, but he gives up the puzzle apparently, and offers no suggestion. The problems of the examiner's table are a fruitful subject for students of psychological medicine, but they are so difficult that most people seem only anxious to avoid them. Mr. Thomas Davidson, who has revived for English readers the remarkable philosophy of Rosmini, is well represented ; for Dr. Burns Gibson contributes an elaborate account of his excellent

sketch of Rosmini's system, and he himself reviews a recent treatise on natural philosophy by a Jesuit, Fr. Pesch. Mr. Sully sends a too short notice of Prof. Preyer's important essay towards a systematic account of early human mental development—"die Seele des Kindes." This book is the first attempt to combine into a scientific whole the various studies of children that have poured in upon all philosophical publications since Darwin and Taine led the way. The knowledge so accumulated displays, it is true, much inconsistency, and is indeed in a hundred ways conjectural and hazy. But Dr. Preyer, with a truly German and businesslike treatment of his subject, examined, observed and experimented upon his own baby three times a day at least for the first three years of its life. The result is a very erudite and interesting account—first of the development of the senses, then of the manifestation of will, especially in the way of "expressive movements," and finally of the growth of the understanding, including the early history of speech. The discrimination of colours was tested about the end of the second year, and resulted in clear proof that the child recognises and distinguishes the colours at the red end of the spectrum sooner than the other. "Yellow comes first, then red, lilac, green, and last of all blue." Mr. Carveth Reed's review by no means does justice to Mr. Seth's able book on "the Development from Kant to Hegel." Neither to our mind does Mr. Grant Allen's scanty note sufficiently recognise the importance of M. Ribot's "Hérédité Psychologique"—a book no doubt well known to many of our readers. Of the Notes and Discussions, which are not very important, the best are on Descartes by H. Sidgwick, and on "Two Schools of Psychology" by Mr. W. H. S. Monck, of Dublin.

The October issue is not a bad one, but our readers will find less than usual relating to their special range of subjects. The editor prints a very short note of the theory of Dr. C. Viguier as to the "sense of direction" in connection with the hypothesis as to the semicircular canals suggested by M. Cyon in an early number of "Mind" (xii.); and he has also a few observations on the meaning and analysis of motives, in view of the difficulties suggested by Seth's work, reviewed at length in the July number. The best review is that of Mr. Edwin Wallace's excellent book on the "Psychology of Aristotle" by Thomas Davidson. In truth, the remarkable work, truly scientific in its methods, and yet truly metaphysical in its speculative reach and depth, which Aristotle did in relation to psychology in almost all its aspects, has never been properly recognised by modern inquirers. Both the careful review and the able and scholarly book itself are strongly to be commended to the attention of students of mind. The review by Mr. Baynes of Prof. Lazarus' collection of monographs on psychological subjects, entitled "Das Leben der Seele," is a slight structure raised on a scanty basis; but it deals, inter alia, with the history of the theories relating to the origin of language—still one of the "opprobria psychologiæ." The summaries of "New Books" refer to Sir John Lubbock's "Ants,

Bees, and Wasps," and Mr. Romanes' "Animal Intelligence" as "bringing animal psychology fairly into line with other sciences" in the scientific series to which they belong. The papers which form the bulk of the number are undeniably vague, but Mr. Thomas Davidson has some interesting things to say about "Perception." The miscellaneous pages contain obituary notices of Prof. Stanley Jevons and of Dr. W. G. Ward, the late editor of the "Dublin Review."

The first number of "Mind" for the current year is stronger in reviews than in other matter. Mr. Frederick Pollock reviews his rival expositor of Spinoza, Dr. Martineau, with great sympathy and suggestiveness. Mr. Grant Allen deals with a critic of Herbert Spencer's "unification of knowledge," and Dr. Burns Gibson devotes a long article to a curious anonymous work called "The Alternative: a Study of Psychology," which merits attention by its daring originality, if by nothing further. Mr. James Sully also devotes seven pages and unstinted praise to a young German, Herr G. H. Schneider, who has new light to throw upon "the human will from the point of view of Darwinism." The radical and far-reaching nature of this new departure will be indicated by Mr. Sully's remark that "the growth of the mind alike in its intellectual, emotional, and volitional aspect can only be made clear and intelligible by the help of the well-grounded hypothesis that the history of the individual is in a manner determined by and a reflexion of the history of the species or *rather of the whole ascending series of species.*" Truly, a difficult, if not a rash investigation, with our present means of knowledge. Amongst the essays stand an unimportant study by Prof. Bain "On some Points in Ethics," a paper by Prof. Croom Robertson "On the Distinction between Psychology and Philosophy," as to which he is hardly clear, and the first of a series of criticisms directed by Mr. Sidgwick against the English Kantians, who have been recently attacking his own ethical views with vigour and success. This reply is a remarkable index of the times; for Mr. Sidgwick practically confesses to a sense of the seriousness of the attack made upon the reigning English school of psychological thought by such men as Profs. Hutcheson Stirling, Caird, Max Müller, Wallace, Adamson, and Watson. When the reigning school begins to be on its defence against so powerful an attack, it is permissible to suspend one's judgment before accepting its myriad hypotheses and its tolerably startling new lights, as a workable basis for students in related or collateral lines of inquiry. Mr. Sidgwick indeed does not seem, at least at the outset, so wholly confident as one might expect. It is significant that he quotes, and italicises, Prof. Wallace's "briefer, but yet more solemn phrase—*learn Kant;*" and more than once in the pages that follow, we are inclined to doubt whether the point of view of the German "critical" philosophy as it is taught by its qualified disciples in this country, is even yet very clear to the mind of Mr. Sidgwick. And if not to him, certainly not to many others who still more confidently despise it.

Regarding the "Revue Philosophique," we are sorry that the

constant pressure on our space has prevented us from doing justice to so excellent a periodical. But we take this opportunity of at least summarizing the more important matters contained in it during the year, many of which have been adverted to in this Journal from time to time. The January number of 1882 had nothing of special interest beyond an admirable article by Ch. Lévêque on the "Psychology of Vocal Music" in France, but the February number was important. Besides reviewing the "Rivista Sperimentale di Freniatria" and the "Archivio di Psichiatria," it contained a suggestive essay by M. Perez on the faculties of the child at birth and in early infancy, an analysis of Dr. Mosso's book on the circulation in the brain, a notice of Prof. Fraser's "Berkeley," and of Prof. Maine's "Primitive Institutions," and a short account of Dr. Paul Radstock's brochure on "Gewöhnung und ihre Wichtigkeit für die Erziehung."

The interest of the March number lay chiefly in a second essay by M. Lévêque on "The Psychology of Musical Instruments," and in a review of Pollock's Spinoza. In April Mr. Gurney's "Power of Sound" is highly praised, and there is a weighty criticism of the psychological method of the school of Wundt by G. Séailles, followed by the first of a series of articles on the "Psychology of Great Men" by M. H. Joly. Except some Russian reviews, May was uninteresting, but June brought out a sociological essay by M. Espinas, a note on certain optical illusions of movement, and notices of the "Annales Medico-Psychologiques" of "Brain" and of "L'Encéphale." In July, Dr. Viguier's article already referred to, on "le Sens de l'Orientation et ses Organes chez les animaux et chez l'homme," has the first place, M. Joly continues his "Psychology of Great Men," and the editor studies the will as a power of arrest and adaptation. There is also a long and able review of Dr. Charlton Bastian's book. August is a less important number, and September is more of speculative than of psychological interest, except for a note by M. Hérault on "La Mémoire de l'intonation."

The October review contains an important analysis, with plates, of Prof. Munk's "Functionen der Grosshirnrinde"—an important contribution to the literature of localization of brain functions. There is also a notice of Legoyt's "Suicide Ancien et Moderne," and of Perez' work on infant psychology already noticed. In November M. Joly concluded his "Psychology of Great Men," and M. Espinas his sociological studies, but the other articles were of less consequence. The December number was distinguished chiefly by an interesting study from the pen of M. P. Tannery on the "History of the Concept of the Infinite in the Sixth century B.C." The Italian periodicals are summarized, and Lazarus' "Leben der Seele in Monographien" is reviewed at length. Much space is also given to a well-written review of Mr. W. Graham's "Creed of Science," which the French critic studies in its relation to Mallock's "Is Life worth Living?"

and other systems of the same class. We hope shortly to review at greater length the numbers of the "Revue" for the present year, which fully maintain its high average of versatility, interest, and scientific value.

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2. *German Retrospect.*

By William W. Ireland, Preston Lodge, Prestonpans.

Comparative Size of Crania of Townspeople and Villagers.

Johann Ranke, of Munich (cited in the "Centralblatt für Nervenheilkunde," 1 Juni, 1882), has studied the relative size of the crania of the inhabitants of the town and country, upon a hundred males and a hundred females from villages, and two hundred skulls from the city of Munich. He finds that, though the size and stature of the country people are greater, the cranial capacity is less in both sexes. The mean capacity of 200 skulls of both sexes was

For the town population,	1442 c.c.	For the rural population,	1419
Of 100 males,	1323	Of 100 males,	1303
Of 100 females,	1361	Of 100 females	1335

The mean capacity of the maxima most frequently observed in crania from the rural population was found to be about 50 c. c. less than the mean maxima of the civic population. In the latter there were more big skulls, and fewer small skulls, than were observed with the villagers.

The First Bridging Gyrus in Man and Apes.

Dr. N. Rüdinger, as we learn from a notice in the "Centralblatt für Nervenheilkunde," Nr. 12, 1882, has given special study to the interparietal fissure and the convolution, called by Gratiolet, premier pli de passage supérieur externe (gyrus occipitalis primus of Ecker, or the first bridging gyrus of Turner). This convolution increases in fulness from the lower monkeys to the primates, and varies in size and fulness in the human brain perhaps more than any other part of the cortex. In women it is generally simple and smooth; but in men's brains, especially in those of intellectual persons, this convolution is more developed, more complicated, and considerably longer. Through the greater development of this gyrus, the curve of the interparietal fissure is diminished: it runs in a straight line from behind forwards.

Another peculiarity of the female brain consists in the weak development of the sulci which go on both sides from the anterior portion of the interparietal fissure, while these secondary fissures in the brains of learned men are increased not so much in number as in width.

Nothing characteristic is observed in the brains of murderers and

robbers, as regards the interparietal fissure, so as to distinguish them from the brains of men of low intelligence.

The author explains this difference in the parietal lobe by the assumption that a higher grade of mental activity has for accompaniment an increase of the surface of the brain. The greatest complexity of the folds of the parietal lobe is found in men of great intellectual powers. We must suppose that the cerebral activity which is exerted by these parts must be of a kind connected with the intellectual faculties; for were it a motor or sensory function, the difference in their conformation would not vary according to the vigour of the intellectual powers.

The Results of Removal of Parts in the Brain of New-Born Rabbits.

Dr. C. Monakow has found that by removing a limited portion of the brain in new-born rabbits, he can cause atrophy in other parts ("Archiv." Band XII., Heft 2 und 3).

He gives the result of his researches as follows:—

1. After extirpation of circumscribed regions of the cortex in new-born rabbits, some tracts dependent upon them become atrophied, and that without reference to their physiological function.

2. More than one tract stands in connection with particular zones of the cortex.

3. The single nuclei of the optic thalamus, as well as those of the corpora geniculata externa and interna, stand in close connection with definite zones in the cortex cerebri.

4. The corpora geniculata externa and interna are analogous structures, like the nuclei of the optic thalamus, and should be viewed as belonging to the latter structure.

The Empirical Theory of Vision.

("Neurologisches Centralblatt," 1 Februar, 1882.)

Professor H. Schmidt-Rimpler operated on a boy who had lost his sight at the age of two years and four months, and who had remained blind a year. His vision having been previously good, he had learned to distinguish many surrounding objects. On regaining his sight, it was found that the child had quite forgotten the appearance of things and the estimation of distances. He had to feel objects before he recognised them. After practising for three days, his power of recognising objects and calculating distances began to improve. The child now walked without stumbling, but still only recognised a few things, and was soon wearied with the perplexing effort to adjust his visual to his tactile impressions. The author declares these observations are incompatible with the views of Herbert Spencer and Dubois-Reymond on our mental relations to space. If the power of interpreting the impression of sense is truly not present in the new-born infant, but grows with the growing mind, as several ideas appear in a certain

time of life, it would be impossible that these faculties once developed should be altogether lost. One can only unlearn or forget what one has learned or committed to memory through his own intellectual exertions.

A New Aesthesimeter.

Dr. Buch, who has been busy for two years at a work on the sensibility of the skin, has invented a new instrument for measuring the degree of pressure that may be applied without exciting pain. It is considered superior to that of Bjornstron, inasmuch as the pressure is applied directly to the surface, and there is no need to gather up a fold of skin, which cannot be done on regions where observation is desirable, such as the scalp, the palm of the hand, the finger, or the sole of the foot. There is a description of the instrument, with an engraving, in the "Centralblatt für Nervenheilkunde," 15th August, 1881.

Munk's Visual Centre.

Dr. Munk ("Centralblatt für Nervenheilkunde," 1 September, 1882) has renewed his experiments on a number of monkeys. He has extirpated the gyrus angularis in six of these animals without producing hemiopia or amblyopia. Where only a passing hemiopia resulted from lesion of the occipital lobe, he thinks that too limited a portion of the cortical matter must have been removed. At first there would result a more or less observable amount of blindness, owing not only to the loss of the portion removed, but also to the injury of the surrounding parts, and the residual deterioration of vision might easily escape detection. He thinks that, where hemiopia has resulted from removal of the gyrus angularis, the inflammation must have extended backwards to the occipital lobes or to the fibres which connect the occipital lobe with the optic ganglia. He says that there is a band of fibres running from the occipital lobe forwards and outwards under the superior corner of the gyrus angularis, which, if injured, causes hemiopia on both sides.

Munk holds that the lateral half of the visual area is in connection with the retina of the same side and the mesial or inner half with the retina of the opposite side, and that the optical meridian of the decussating and non-decussating portions of the retina runs through the middle of the macula lutea. On the right of this line the retina is in connection with the right hemisphere; on the left side of the line, with the visual area of the left hemisphere. The side of the retina which goes to the hemisphere on the same side is much larger in the monkey than in the dog. After many failures he succeeded in removing the outer half of the visual area in the left occipital lobe, and the inner half on the right side, and likewise managed to keep the monkey alive long enough to note the result. The animal was almost blind with the left eye, seeing only a very little with the outer side of the left retina; but the sight of the right eye was unaffected.

In four experiments he removed the lateral half of the convexity of the occipital lobe, taking the sagital line as the boundary ; and this in every case produced hemiopia of the eye on the same side without any injury to the opposite eye.

He concludes, from some experiments, that in the monkey the portion of the visual centre in functional relation to the macula lutea extends widely over the convexity of the occipital lobe, and that the portion corresponding to the fovea centralis lies in the posterior half of the convexity of the lobe.

Professor Fürstner, at the meeting of Neurologists in Baden-Baden, on the 21st May, 1881 ("Centralblatt," 1 Sept., 1881), made a demonstration of the brain and spinal cord of a patient afflicted with congenital malformation and secondary disease of the brain and spinal cord. The frontal lobe was much affected, especially the third convolution. This patient had never been aphasic, but was left-handed. The spinal cord was divided into two at the dorsal region ; higher up into many portions. The patient had worked in diving-bells, which is supposed to have induced secondary disease.

Professor Fürstner also gave the result of his experiments on the influence of lesions of one side of the medulla oblongata upon the development of the hemispheres in new-born dogs. In opposition to the results of Munk and Vulpian, he failed to produce in fifteen experiments any atrophy of the opposite occipital lobes. In ten of these dogs, however, there was a diminution in size which extended from the extremity of the occipital lobe to the spot where the second parietal lobe passes into the gyrus post-frontalis. The diminution was most marked at this very point. In four dogs there was no difference in the size of the hemisphere ; in one the diminution in size was on the same side as the lesion. The examination of the tissues with the microscope led to no result.

The Auditory Centre.

Dr. Munk, in a communication which he made to the Berlin Academy of Science (quoted in the "Centralblatt für Nervenheilkunde, 1 August, 1881), places the auditory centre in that portion of the temporal lobe below the visual centre and above the gyrus hippocampi, always excepting a piece of the fourth outer convolution near the fissure of Sylvius. After destruction of this area on both sides there is deafness, and in a few weeks after the dog ceases to bark or whine, just as it does if the apparatus of both ears is destroyed. If the auditory centre is extirpated, and the internal ear on the same side is also destroyed, the animal becomes deaf, and soon dumb. This shows that the peripheral apparatus of each acoustic nerve is connected with the brain on the opposite side, so that each auditory centre is exclusively connected with the opposite ear.

Munk has also sought to find out if the different regions of the auditory centre have the same physiological function. He has arrived

at the conclusion that the anterior part of the auditory area is used for the perception of the high notes, the posterior part for the deeper tones, and that the usual hearing of the dog is connected with the under part of the auditory centre.

The Overtasking of Pupils at Schools.

In the "Zeitschrift," xxxviii. Band, 2 und 3 Heft., Dr. Snell brought before the Association of Alienist Physicians of Lower Saxony and Westphalia the question of the overtasking of the pupils of the higher schools. He gave three examples of injury which scholars had derived from over-exertion. The first of these, a boy of 17, had suffered from diphtheritis, which made him lose ground with his class, so that he redoubled his application in order to regain it. In the end he became sleepless, complained of persecution, and at last became maniacal, but soon calmed down, though it was above a year and a half before he could be dismissed as cured. Another lad had been the dux of the gymnasium. He had no hereditary tendency to insanity. He was believed to be of only moderate capacity, somewhat nervous, liable to indigestion, but docile, religious, and very hard working. He showed heaviness and apathy alternating with excitement, brooded over his condition, talked with contempt and hatred of the discipline of the school, and the conceited pedantry of the teachers, and tried to prevent his younger brothers being subjected to the same system. Though there were explosions of fury, the general character of his insanity was towards apathy. There were delusions and diseased sensations, with the character of persecutions. He was 18 when he became insane. His recovery is not yet recorded.

The third was a boy of 16, also dux at a gymnasium, who had two aunts with abnormalities of character, but no wise insane. He had great capacity and emulation. He worked very hard at school, and at last passed into a condition of maniacal excitement, with intervals of rest and occasional fits of cataleptic rigidity.

Dr. Snell considers that the mental strength of young people is often overtasked at the higher schools, and refers for support to the work of Dr. Petermann, who advocates a thorough reform of the school system in Germany. The result of the existing system he considered to be a culture of superficial character with a tendency to overwrought brain, nervous weakness, and sexual irregularities.

Dr. Wahrendorff referred to the overweening importance which each teacher gave to his own subject, without allowing for the relative importance of other branches of knowledge. It was mentioned that the subject had been discussed at the International Congress at Brussels. Complaints of the overburdening of scholars had come from Sweden, Belgium, France, and England.

Dr. Burghard had found the bad effects of examinations more frequent with girls than with boys, especially with female teachers at the higher normal schools. It was proposed by some of the speakers

that there should be examinations of the scholars to ascertain whether they were capable of higher instruction, that is, I suppose, a new and earlier examination should be added, to ascertain whether the pupils should be allowed to work for another examination at a later date. In this case the object would be best attained by excluding the docile and diligent pupils, and then the duller and lazier ones would not be compelled to work so hard in the race for competition.

Disorders and Deficiences of Speech in Children.

R. Coën ("Archiv für Kinderheilkunde," 2 Band, 8 und 9 Heft, 1881, quoted in the "Centralblatt," 15th October, 1881) has studied 110 children of from three to 14 years of age, who were troubled with disorders of speech. Of these 54 stuttered; 20 stammered; 13 had lisping, snorting, or other peculiarities of utterance; 23 were affected with alalia idiopathica, which he defines as a congenital incapacity to form articulate sounds in contradiction to acquired aphasia. Of the children so affected, 12 were boys, and 11 girls. The youngest was three years and a half; the oldest ten. They were mostly healthy, blooming children, presenting no outward visible symptom, with good hearing, and no trace of paralysis or abnormality of the head or body. The affection seemed to be inherited; more rarely it was due to traumatic or mental influences. Dr. Coën thinks that the deficiency was due to the incomplete development of the motor centres of the muscles of the vocal apparatus, or to interruption of the centrifugally conducting tracts.

Porencephaly.

In the "Centralblatt" (1 Dezember, 1881) there is a review by Dr. Müller, of Graz, of a monograph by Kundrat on Porencephaly, a deficiency of the outer wall of the hemisphere which penetrates more or less deeply, so that in pronounced cases the subarachnoid space communicates with the lateral ventricles. The space is generally filled with clear serum. Kundrat has collected 32 cases (that of Mierzejewski mentioned in our Russian Retrospect, 1882, is not given). To these Kundrat has added twelve of his own. Porencephaly is not always congenital, but may be caused after birth by a destructive lesion of the cerebral matter between the ventricles and the surface of the hemisphere. One example is given in fuller detail. A woman of sixty-three at her death had been, eighteen years before, suddenly seized with hemiplegia of the right side and aphasia. There was some improvement in the condition of the lower extremity; but the paralysis of the arm persisted, and there was contraction at the elbow and the fingers. During the illness there were epileptoid attacks, which at first returned every four or six weeks, but in course of time became less frequent. A year after the paralytic attack she began to learn again to speak like a child. During the last years of her life she became subject to amnesic aphasia. She died in the hospital of

inflammation of the lungs. On examination it was found that the cranium was thicker, by from five to six millimètres on the left frontal region than on the right. There was a deep depression or pit in the brain substance in the region of the island of Reil, bridged over by the thickened arachnoid membrane. This cavity was caused by the destruction or contraction of the extremities of the third frontal, the median gyri, and the first temporal. The left hemisphere was somewhat smaller than the right through the flattening of its convexity over the depression. The nucleus lenticularis and the optic thalamus of the left side were in great part destroyed; and there was degeneration of the left crus cerebri, left side of the pons, the anterior pyramid, and of the right lateral column of the cord.

Kundrat enumerates four forms of porencephaly in their order of frequency.

I. Porencephaly through arrested development.

II. Through alterations after the parts have been normally developed.

III. Connected with hydrocephalus.

IV. From cicatrization.

The fourth form is very rare. As regards the situation, he finds eight acquired, and nineteen congenital cases in the parts supplied by the artery of the Sylvian fissure; four, all congenital, in the region of the anterior cerebral artery; and five, two acquired and three congenital, in that of the posterior cerebral. Sixteen of the cases were males, and twenty-four females. Of eighteen born with porencephaly only three lived beyond the period of infancy. When the porencephaly dates from intra-uterine life, the gyri radiate from the depression as from the cup of a wheel. While the arachnoid bridges over the cavity, the pia mater descends to line the walls down to the ependyma of the ventricles. This malformation seldom supervenes earlier than the fifth, generally from the sixth or seventh month. In the acquired form the pit is hollowed out by the destruction of the substance of the gyri; the pia mater does not cover its walls, which are formed simply by the altered cerebral substance. The ganglia at the base of the brain are in many cases stunted in development on the defective side; in some instances they have entirely disappeared. There is sometimes want of symmetry in the form or arrest in the growth of the cranium. The clinical symptoms vary according to the extent and situation of the deficiency, as well as the period in which it has been produced. Idiocy, though not a constant sequel of congenital porencephaly, is commonly present, in most cases accompanied by mutism.

PART IV.—NOTES AND NEWS.

THE MEDICO-PSYCHOLOGICAL ASSOCIATION.

The usual Quarterly Meeting of the Medico-Psychological Association was held on Wednesday evening, 21st February, 1883, at Bethlem Hospital, Dr. Hack Tuke in the Chair. There were also present:—Drs. J. Adam, J. O. Adams, H. Ashwell, C. Clapham, J. E. M. Finch, H. Gramshaw, C. K. Hitchcock, Victor Horsley, P. Horrocks, W. R. Huggard, O. Jepson, J. B. Lawford, H. C. Major, W. J. Mickle, A. W. F. Mickle, G. Mickley, J. H. Paul, J. A. P. Price, G. N. Pitt, H. Rayner, G. H. Savage, W. J. Seward, H. Sainsbury, D. G. Thomson, C. M. Tuke, E. S. Willett, W. Wood, R. Wood.

The following gentlemen were elected members of the Association, viz.:—

Dr. J. A. Mac Munn, 110, Newtownard's Road, Belfast.
W. Banks, M.B., The Friends' Retreat, York.
A. W. T. F. Mickle, M.B. and C.M., Edin., Kirklington, Ripon.
W. Murdoch, M.B., C.M., Kent County Asylum, Barming Heath.
D. Walsh, M.B., C.M,, Kent County Asylum, Barming Heath.
F. J. R. Russell, L.K.Q.C.P., 48, Lupus Street, W.

Dr. Tuke having vacated the chair, it was occupied by Dr. Wood, who called upon him to read a Paper "On the Mental Condition in Hypnotism." (See Original Articles.)

At the conclusion of the paper, Dr. TUKE remarked that they were very fortunate in having Dr. Wood now in the chair, as many years ago that gentleman paid considerable attention to hypnotism—in the time of Dr. Elliotson, when it bore the name of mesmerism.

Dr. WOOD said that many years ago he was clinical clerk to Dr. Elliotson, when the subject of mesmerism was brought up, and it became his duty to observe the practical operation of it, and to see a good many very remarkable cases. The word "hypnotism" had not been used then. As a consequence of what was at that time observed, a leading surgeon at Manchester, Mr. Braid, investigated the subject, and was the first who proposed to adopt that designation. He (Dr. Wood) went to Manchester to see his process, which consisted in fastening a cork on the forehead, or holding a bright object in front of it, and requiring the person to look up continually at it till he was hypnotised. This, undoubtedly, did produce a very remarkable condition, which was perfectly genuine. His (Dr. Wood's) observation on that process led him to confirm what Dr. Tuke said as to its nature and effects. It seemed to him that some portion of the brain was exhausted, and that the consequence of that exhaustion was the disturbance of the due balance between the two portions of the brain, resulting in those peculiar symptoms noticed in hysterical cases. The resulting condition, as far as he saw it, did not go to anything like the extent which it did in what was usually called mesmerism. The same principle, however, was involved—the exhaustion, disturbing the balance of the mind. The personal influence certainly had a great deal to do with the matter; and, if rightly applied, was very important. Personal influence was also one of the greatest aids they could possibly have in the management of the insane. There was, it must be remembered, another side to the question. If they were really able to produce an abnormal condition, which for the time so closely resembled insanity, did they not run some risk of establishing a condition which they might not be entirely able to control, and a risk, moreover, that the repetition of that condition so produced might lead to the establishment of a permanently morbid state? The question, therefore, should be well considered as to how far they should advocate the use of hypnotism as a remedy; although, certainly, as applied to insane

persons, it was not open to the same objection which might exist in the case of sane persons. They could hardly substitute anything worse than the condition existing in insane persons, so that if hypnotism did give them the means of substituting a new condition, one would be inclined to risk it. In that sense, at any rate, the subject seemed to come fairly within the province of the Medico-Psychological Association.

Dr. SAVAGE said it was as well for each of them to say in a few words what they had thought on the subject. There were very interesting points about the personality of the mesmerised or hypnotised. How rarely they met any one who willingly owned to being mesmerised. At present one might almost as soon belong to the Salvation Army, or the Blue Ribbon Army, as own this. Were the people who were most readily hypnotised of a weaker mental character than those not so easily hypnotised? He, for one, would distinctly say no. It was simply an accident that certain persons were in the hypnotising relationship to certain others—that there was an influence exercised by one person over another—just as one man might have an influence over a dog which another might not have. Therefore the hypnotic relationship was not to be considered as one of weakness. A person might be hypnotised without being a fool. It was a pity, then, that there should be that kind of dread of the thing. One was constantly struck with the effect of attention. A person was thinking of something else. His hand would be shot off. He does not feel it. A person having a sudden shock at a full meal might afterwards vomit an undigested meal. He would prefer to regard the condition of hypnotism as one of inhibition of attention rather than exhaustion. At their recent experiments at Bethlem he himself had tried to be hypnotised, but without success. He longed to know what it was like. Certainly he exhausted his senses as far as possible, but all in vain. He believed rather in the inhibition of the mind—the diversion of the mental force—rather than in its simple exhaustion. They were, doubtless, in the face of a new science, and could not explain it fully yet. Years and years ago, it was said that the savage explains, and the wise man investigates. All they had hitherto done was to investigate, until some scientific charlatan would arise and would explain too much. He thought it was possible they might not hear much more of hypnotism in the sense of finding a satisfactory explanation for some twenty years. He believed they were not yet in the position to explain these things, and he regretted that they had not had in the experiments made at Bethlem some one whom they knew, fall under the hypnotic influence, so that they might have seen what honest hypnotism really was. The unfortunate part of the thing was that everything was satisfactory on the evening referred to, except the people who fell under the influence—they were outsiders. He quite believed they were honest people, but the fact that the hypnotist succeeded on that occasion upon outsiders, and did not succeed in hypnotising those who were there, was a misfortune. He merely said it was a pity that they could not always get cases such as they wanted, and such as Dr. Tuke had succeeded in obtaining information from as to their own feelings when hypnotised. Perhaps when the science had been more carefully investigated they would be able to show that certain persons would affect certain others. A point of great importance was whether the physical state of the hypnotised or hypnotiser affects the power of the influence. A woman A, subject to nerve storms could influence a person B when she was in health. Could she do that when she was suffering from illness? In cases of thought-reading he had heard remarks such as this:—"I cannot influence so-and-so when I have one of my sick headaches. I have tried to do so, but I could not." In another case he had reason to believe that a certain lady when she was menstruating could not exercise the same influence which she could at another time. That repetition led to the facility with which these experiments could be made, he had seen over and over again. Then there was the medico-legal aspect of the subject.

Supposing that hypnotism should become a widely-spread thing, it seemed to him there was a danger of its being made use of for improper purposes. As an instrument, for instance, for the fabrication of wills. As far as they knew it at present it seemed open to such abuses, but when they knew more about it, they might, perhaps, smile at what they had thought before they understood it better.

Dr. HACK TUKE, in reply, said that there was very considerable force in what Dr. Wood had said with regard to the risks incurred in hypnotising. He had known neurotic cases where it was obvious that frequent repetition was very undesirable. He thought that Dr. Savage was correct in what he said as to the cases which might be subject to hypnotism. It was not necessarily any sign of a weak, nervous, or mental organization; and he might recall the fact that Mr. Hansen said that he found the best rowers and athletes at the Universities the most subject to his process. Then Dr. Savage had said that he inclined to think that it was not explained by simple exhaustion. The position which Dr. Savage took really amounted to very much the same thing, and was in accordance with Laycock and Hughlings Jackson. What Dr. Savage said, "A diversion of the force" was similar to the position described by Dr. Jackson. The fact that the higher centres were in abeyance must, he thought, be admitted, and this was a very important point for consideration in regard to explaining the phenomena. Dr. Savage's remarks as to "outsiders" were much to the point, and he wished that on the evening the experiments took place they had had a myograph and other instruments which would have enabled them to determine several doubtful points. As regards the physical state affecting the influence, there was no question at all. Hansen himself connected his loss of influence, when it occurred, with the loss of vital power —what he would call magnetic force power—when he was "below par." The case of thought-reading was rather different. In the case Dr. Savage referred to it was not, he thought, that the lady was trying to influence another person, but she was trying herself to read his thoughts. In reference to the medico-legal aspect of hypnotism, there was the recent case in Paris of a young man who was taken up on the charge of an outrage upon public decency. He was sentenced to some imprisonment, but the judgment was reversed on appeal, in consequence of M. Mesnet and M. Motet coming forward and giving evidence that the man was a somnambulist—in fact, spontaneously hypnotised. They did more; they offered to induce the same condition in the prisoner as at the time of the alleged misdemeanour, and the President of the Court permitted them to do so. The experiment succeeded, and the Court was convinced the man was not responsible.

Dr. SAVAGE read a Paper "On the Marriage of Neurotic Subjects." (See Original Articles.)

Dr. MICKLE said that he should be personally disposed, under such circumstances, to restrict marriage more than the author of the paper. The marriage was so clearly productive of misery and woe to the offspring, that although the contracting parties might be quite ready to run the risk, they had hardly the right to entail the suffering upon their progeny. A very important point was that if a neurotic person married, the choice of the mate might be judiciously determined by the temperament of the patient. In neurotic persons they had a diathesis, and he did not think they should choose a diathesis which would intensify the other; but a person of the lymphatic temperament would probably be the best person for the patient to consort with.

Dr. WOOD said that when their advice was asked upon the question of the marriage of neurotic subjects a good many of them would be naturally disposed to suggest the advice given by "Punch," and say "Don't!" but it would be scarcely doing justice to society if they allowed the fear of a very possible danger to cause as much misery, perhaps, by disappointment, as would be likely to occur from the development of disease in the progeny. It was a peculiarity of man's nature that he did not shrink from danger. The

schoolboy did not neglect his games because they were attended by a certain amount of danger; and although in the point under consideration there was, undoubtedly, a serious danger of what *might* occur, yet on the other hand there was a danger which was apt to be overlooked which might arise from the disappointment of those who had made up their minds that they ought to marry. Moreover, in the majority of cases, although their advice was asked, it was very rarely taken. Of course they would all say that a patient who was at the time insane would be very likely to have a child who would become insane; but if the causes of the man's insanity had entirely ceased he would be as unlikely to have a recurrence of his malady as if he had not had it at all. A great many of those who have been insane have been so from causes which have been temporary, and which have been entirely removed, and may never occur again. If the children born were born at a period subsequent to the disease of their progenitor he did not see why the insanity should be perpetuated. They were all familiar with the expression that genius was closely allied to madness. To a certain extent that might be true, but there was a marked difference, and it did not follow that one should degenerate into the other. A person of very distinguished intelligence might come through flights of genius to an eccentricity nearly approaching insanity, but it would be wrong to the State to say that such a person should not marry. He might marry a wife who had no taint whatever, and the admixture might produce a child of fine mental power. He thought that if they took pains to ascertain the whole of the circumstances of the case, and if they were satisfied that there had been a sufficient interval, and that the history did not point to a continuous hereditary taint, there was no reason why marriage should be forbidden. It all depended upon how far the recovery had been confirmed, and how long it had continued.

Dr. Hack Tuke said that one point of importance, which had been somewhat overlooked, was whether the wife had passed the child-bearing period. There were many cases where one could fall in with the proposed marriage of those who had been insane when there was no chance or probability of a family. Unfortunately, however, whatever they might decide on the question of marriages they would not, he feared, prevent the increase of families in the already married in consequence of the return home of the recovered patients and those out on trial; and it was a very melancholy aspect of the question that in proportion to the greater number of recoveries obtained, so there was the probability of a greater number of cases of insanity through hereditary transmission. He had been consulted as to whether it would be honourable or desirable to give up an engagement under such a condition of things as the following. A young medical man had called upon him saying that he had become engaged to a young lady whose mother had been insane for many years; in fact was of unsound mind when she married, and the young lady herself was very neurotic and easily excited. The question in these cases had to be decided whether a man was justified in giving up an engagement, especially when such a course would very likely induce an attack of insanity in the lady who is rejected. Again, he knew the case of a gentleman who made an offer of marriage to a lady. She refused him, and in consequence of that he became insane. He recovered, and she then accepted him. They married and had a family. He was not aware that any had shown mental symptoms. The wife died, and in consequence of her death he again became insane. He again recovered, was again married, and had now another family, and was, he believed, mentally well. In relation to another class of cases—those of great ovarian irritation and erotic tendencies—a mother would ask, "Is it not really most desirable that my daughter should marry?" In such cases he had no hesitation in declining to give any encouragement to the idea of such persons marrying. The husband ought also to be considered.

Dr. Crochley Clapham—What advice did you give to the young man?

Dr. Tuke—I told him that I thought it was a very serious thing to marry,

and that he would not be acting dishonourably, under the circumstances, in giving up the engagement (hear, hear).

Owing to the lateness of the hour Dr. SAVAGE replied very briefly, saying that the paper was meant simply to be a suggestive one. Nearly all the speakers had quoted facts, and if the facts could only be put together much good would accrue. He, therefore, hoped that the members would accept his paper as merely a suggestive one, and fill up the details for themselves.

Correspondence of the Parliamentary and Pensions Committee of the Medico-Psychological Association with the First Lord of the Treasury, the Commissioners in Lunacy, and the President of the Local Government Board, in December, 1882, *and January,* 1883.

[The Sub-Committee appointed at the Meeting of the Parliamentary and Pensions Committee of the Medico-Psychological Association, held in London on the 29th November, 1882, submit, for the information of the Members, the following Correspondence.]

1.—*Letter Addressed by the Chairman of the Parliamentary and Pensions Committee of the Medico-Psychological Association to the First Lord of the Treasury.*

TO THE RIGHT HON. W. E. GLADSTONE, M.P., FIRST LORD OF THE TREASURY, &c., &c., &c.

SIR,

The Parliamentary Committee of the Medico-Psychological Association desire with reference to the County Government Bill, one of the measures said to be in preparation for the coming Session, respectfully to direct your attention to the financial relations existing since the Parliamentary grant of 1874 between the Government and the County and Borough Pauper Lunatic Asylums.

Last year this grant from the Treasury for England and Wales alone towards the maintenance of the lunatics in these asylums amounted to £418,632. A great opportunity appears to us to occur in the establishment of County Financial Boards for placing the expenditure of this grant on a surer and more satisfactory footing. At present, as you are aware, the Treasury pay 4s. a week to the several Unions for every pauper lunatic maintained in asylums.

There is a general concurrence of opinion with the Committee of Visitors and their Medical Officers (as shewn in their several annual reports to the Quarter Sessions) that the present distribution of this grant leads directly to a needless increase in the admissions to the asylums of aged lunatics, harmless imbeciles, chronic cases, and idiot children, who formerly were and can, with great economy and equal benefit, be kept under proper arrangements in the workhouse wards.

In their last Report for 1882, the English Commissioners in Lunacy, in the following remarks confirm the opinion we entertain of

the injury thus done by the present application of the 4s. grant :— "In our experience there is now frequently a tendency to send to the asylum patients who might be sufficiently cared for in workhouses. We have no doubt, indeed, that the effect of the Parliamentary subvention of 4s. a week allowed to Boards of Guardians for every insane patient maintained in an asylum has, in many instances, tended to promote the removal to asylums, and has prevented the return back to workhouses from asylums, of patients who could, with slightly more liberal provision in the way of food and supervision, be adequately dealt with in workhouses. The rate of maintenance in county asylums is in many districts so moderate that, deducting the 4s. subvention, the cost to the Guardians is less than if the insane person were retained in the workhouse. One of the consequences has been an increased demand for county asylum accommodation, and an increased burden on the county rate, though there has been, by means of the subvention, some relief of local charges as regards the poor rate."

The yearly increase in this Parliamentary grant of 4s. is startling. For the financial year 1875-6 it amounted to £337,126, in 1881-2 it rose to £418,632 for England and Wales only. To these figures have to be added the payments made in 1881-2 to Scotland and Ireland, viz., £79,711 for Scotland, and £87,250 for Ireland, being a total of £585,593. In the estimates for 1882-3 there is a further increase of £8,500 for England, £3,412 for Scotland, and £2,078 for Ireland on this 4s. grant. Here, then, is a yearly increasing expenditure of over half a million voted by Parliament under the idea that thereby relief is given to the landed interest at the cost of the Imperial Treasury; yet the only result is to increase alike the total expenditure on the maintenance of pauper lunatics in asylums, and by increasing their number to compel the counties to incur fresh expenditure in the enlargement and increase of the county asylums, all of which expenditure tends directly to increase the county rate.

The total cost of maintenance in the county asylums paid by the unions in 1875 was £859,073. In 1881, this sum increased to £1,033,780. During the same period the yearly admissions into the county asylums increased from 8,792 to 10,758, and the ratio of the pauper lunatics in asylums to 10,000 of the population, rose from 13·22 to 16·40, while the total proportion of pauper lunatics to the population stood at 23·07 and 25·40 in these six years. Thus, while the total increase of pauper lunacy to the population was only 2·33 per 10,000, the increase in the same period of pauper lunatics maintained in asylums was 3·18.

In the report of the Scottish Commissioners in Lunacy for 1881 the influence of this grant on the total number of pauper lunatics in asylums has been very carefully analysed in a statistical study of great merit. We can here only indicate their conclusions, viz., that the grant has increased the number of pauper lunatics in asylums and raised the cost both of maintaining them and providing accommoda-

tion for them; a result identical with that at which, as we have said, the visitors and medical officers of the county asylums in England have arrived.

We might greatly extend these remarks, but we think we have said enough to forcibly direct your attention to the importance of re-adjusting this grant, so that instead of leading as now to wasteful expenditure and adding, by the required increase in asylums, to the county rate, it may be made, as was intended by its author, the means of relieving the local expenditure on the accommodation and maintenance of pauper lunatics.

The suggestion we offer for your consideration is that this grant be paid, not to the several unions, but to the new County Financial Boards for the payment of certain definite items in the cost of the provision and maintenance of pauper lunatics in the county asylums. We propose that the salaries and wages should be the first charge on this fund, and which, being part of the maintenance cost, would be a direct relief to the unions of about 2s. 3d. a week per patient. The next charge on this grant should be the pensions which now fall on the county rate, and may be put at 9d. The remainder, 1s., should be applied to the repairs and enlargement of the fabric, also a county rate charge. This rate does not average more than the 1s. to be thus applied. On this scheme the Unions would benefit to the amount of the salaries and wages, and the average maintenance charge in the county asylums would be reduced from 9s. 6d. to 7s. 3d. (See appendix B.) The temptation to remove incurable lunatics from the workhouse wards to the asylums would be removed owing to the continued higher rate of maintenance in the county asylums, while yet a marked reduction of the weekly charge would be made to the Unions. The county rate, again, which really represents the landed interest which this grant was intended chiefly to relieve, would gain the amount now charged against it for pensions and repairs of the fabric; and, what would still be a greater saving, the yearly cost of increasing the asylums and providing others to meet the present influx of chronic lunatics from the workhouses would cease.

Should this principle of the application of the 4s. grant to these items of expenditure be accepted by you, the opportunity is then given of placing the superannuation allowances granted by statute to the officers and servants of the county and borough asylums on a more stable and satisfactory footing than they are at present. We have suggested that these be made the second charge on the 4s. grant, and said that 9d. would amply meet all demands in the county rate for this item.

The LVII. section of "The Lunatic Asylums Act, 1853," and section XII. of "The Lunacy Acts Amendment Act, 1862," provide that the Committee of Visitors may, if in their discretion they think fit to do so, recommend to the Quarter Sessions for a retiring pension not exceeding two-thirds of the salary and allowances payable at the time of retirement, any officer or servant of fifteen years'

service, and not less than fifty years of age. In practice, this clause has led to very variable results. Some Quarter Sessions, as the Surrey this year, have granted the full allowance after fifteen years' service and fifty years of age. In others the question has been differently viewed, and great uncertainty prevails in the minds of the officers of these asylums as to their prospective pensions. We venture to suggest that this is the occasion to revise the conditions of asylum pensions. It may on the one hand be admitted that under the present statutes the service required is too short, fifteen years, and the age at which pensions may be granted too low, fifty—both of which conditions, doubtless, have been the cause of the difficulties and differences in the application of the pension clauses which have hitherto prevailed at Quarter Sessions. On the other hand, the officers of these asylums feel very deeply the uncertainty of permissive pensions granted only at the pleasure of the Quarter Sessions, and they feel that the same or even greater uncertainty will attend the future of their pensions should they be left at the control of the County Financial Boards.

In their perplexity they turn to the provisions made by Parliament for the superannuation of the civil servants under "The Superannuation Act, 1859," and they desire respectfully to urge on your consideration the justice and expediency of placing the officers and servants of the county and borough asylums on an equality with the other civil servants of the State. They are ready to waive the claims they now have to a pension of two-thirds of their salaries and allowances after fifteen years' service and fifty years of age, and to accept the requirements of that statute as set out in sections II. and IV.

The Bill introduced by your Government last Session, "The Police Act, 1882," had for its object to assure the right of constables to pensions after a fixed period of service. The officers of county and borough asylums ask a similar gift at your hands, and desire to be placed like other civil servants under "The Superannuation Act, 1859," with the allowances and safeguards contained in its provisions. If our suggested re-adjustment of the 4s. grant meets with your approval, the 9d. appropriated to the relief of the county rate, for the payment of these pensions, appears to us to justify their being placed under the Treasury regulations, as provided in "The Superannuation Act, 1859," the provisions of which we regard in the assurance of an equitable superannuation allowance as just and fair alike to the State and to its civil servants, and which, for the officers and servants of the county and borough lunatic asylums, we should thankfully accept at your hands.

I have the honour to be, Sir,
Your most obedient, humble servant,
(Signed) C. LOCKHART ROBERTSON, M.D.
Chairman of the Parliamentary and Pensions
Committee of the Medico-Psychological Association.
London, December 20, 1882.

2.—*Letter from the First Lord of the Treasury to the Honorary Secretary of the Medico-Psychological Association.*

10, Downing Street, Whitehall,
23rd December, 1882.

Sir,

I am directed by Mr. Gladstone to acknowledge the receipt of your letter in which you do him the honour to forward to him a communication from the Medico-Psychological Association in connection with the maintenance of Pauper Lunatics, and to inform you that he will not fail to bring it under the attention of the proper authorities of the Government.

I am, Sir,
Your obedient Servant,
(Signed) HORACE SEYMOUR.

Henry Rayner, Esq., M.D.

3.—*Letter from the Honorary Secretary of the Medico-Psychological Association to the Secretary of the Commissioners in Lunacy.*

County Asylum, Hanwell,
20th December, 1882.

Sir,

I am desired by the Parliamentary Committee of the Medico-Psychological Association to send herewith for the information of the Commissioners in Lunacy a copy of a letter which they forwarded on the 20th inst. to the Prime Minister.

The Committee feel assured of the interest the Commissioners already take in securing to the Officers of County and Boro' Asylums a due consideration of their claims for pension, and they now send this copy of their present letter in order to inform the Commissioners of their wishes and suggestions in this matter, one alike to them and to the due administration of the County Asylums of so vital importance.

The Committee trust that should the occasion offer, the Commissioners will, if they see an opportunity, support these proposals of the Association.

I am, Sir,
Your obedient Servant,
(Signed) HENRY RAYNER, M.D.
Honorary Secretary of the
Medico-Psychological Association.

Charles Spencer Percival, Esq.,
Secretary to the
Commissioners in Lunacy.

4.—*Letter from the Secretary of the Commissioners in Lunacy to the Honorary Secretary of the Medico-Psychological Association.*

Office of Commissioners in Lunacy,
19, Whitehall Place, S.W.,
January 9th, 1883.

Sir,

I am directed by the Commissioners in Lunacy to acknowledge with thanks the receipt of your letter of 20th December with copy of a communication addressed to the Prime Minister; and to say that should an opportunity offer they will gladly do what they can to promote the object of placing the pensions of the Medical Officers of County and Borough Asylums upon a more certain and satisfactory basis.

I am, Sir,
Your obedient Servant,
CHAS. SP. PERCIVAL,
Secretary.

Henry Rayner, M.D.,
Hon. Secretary of the
Medico-Psychological Association.

Copies of this letter have also been sent to the Rt. Hon. Sir Charles Dilke, M.P., President of the Local Government Board, and to the Right Honorable H. C. E. Childers, M.P., now Chancellor of the Exchequer.

5.—*Letter from the Chancellor of the Exchequer to the Honorary Secretary of the Medico-Psychological Association.*

11, Downing Street, Whitehall,
1 February, 1883.

Sir,

I have to acknowledge your letter to the Chancellor of the Exchequer, enclosing, by desire of the Parliamentary Committee of the Medico-Psychological Association, a copy of a letter addressed to Mr. Gladstone in December last, with reference to the financial relations existing, since the Parliamentary grant of 1874, between the Government and the County and Borough Pauper Lunatic Asylums.

Your Committee may feel assured that the circumstances to which they drew attention, and their suggestions, will receive the careful consideration of the Chancellor of the Exchequer.

I remain, Sir,
Your obedient Servant,
J. M. CARMICHAEL.

Henry Rayner, Esq., M.D.,
Honorary Secretary,
Medico-Psychological Association.

Appendix A.

Table showing the Sums paid from the Consolidated Fund for the Maintenance of Pauper Lunatics 1875–82 *(Eight Years).*

Years.	England and Wales.			Scotland.			Ireland.			Total.		
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
1875	337,126	6	0	59,483	1	0	69,948	0	0	466,557	7	0
1876	339,113	4	0	62,637	15	5	77,907	3	0	479,658	2	5
1877	380,593	6	0	65,470	1	0	80,380	8	0	426,443	15	0
1878	379,968	14	0	68,533	10	0	82,053	16	0	530,556	0	0
1879	394,483	11	6	71,272	18	6	84,810	8	0	550,566	18	0
1880	406,047	19	2	73,833	18	11	85,841	0	0	565,722	18	1
1881	418,632	0	0	76,856	5	6	87,250	4	0	582,738	9	6
Estimate for 1882	433,500 (estimate)			80,000 (estimate)			90,000 (estimate)			603,500 (estimate)		

Note.—In addition to these totals, £164,772 6s. 0d. was paid to the Unions in England and Wales for the half-year ending September, 1874. For Ireland, £55,692 was voted in 1874; but not being expended, was repaid to the Exchequer.

Appendix B.

Table showing the Average Weekly Expenditure in the County Lunatic Asylums from the Union and County Rates respectively with the Proposed Re-adjustment of the same by the use of the 4s. *Grant.*

	Weekly Amount.	Reduction by re-adjustment of 4s. grant.	Remaining Charge to Union Maintenance Rate.	Remaining Charge to County Rate.	Remarks.
1.—*Charged to Union Maintenance Rate—*					
Salaries and Wages	2s. 3d.	2s. 3d.	none.		By the payment of the 4s. grant to the County Financial Boards, and by the re-adjustment of the expenditure suggested by the Medico-Psychological Association, the average Union Maintenance Rate of the County Lunatic Asylums would be reduced from 9s. 6d. to 7s. 3d., while the charge on the County Rate for superannuation and repairs would be entirely paid; a definite and immediate relief to the landed interest.
Provisions	4s. 6d.	none.	4s. 6d.		
Clothing	8d.	none.	8d.		
House Necessaries, Fuel, Light, Washing, &c.	1s. 0d.	none.	1s. 0d.		
Medicine, Wine, Spirits, &c.	2d.	none.	2d.		
Furniture, Bedding, &c.	11d.	none.	11d.		
Total Union Maintenance Rate	9s. 6d.	2s. 3d.	7s. 3d.		
2.—*Charged to County Rate—*					
Superannuation Allowances	9d.	9d.	...	none.	
Repairs, &c., of Fabric	1s. 0d.	1s. 0d.	...	none.	
Total Charge on County Rate	1s. 9d.	1s. 9d.	...	none.	

PROPOSED REPRINT OF SCOT'S "DISCOVERIE OF WITCHCRAFT."

[We gladly draw attention to this proposed reprint, and heartily wish it success. The facts speak for themselves. Those who are willing to assist Dr. Nicholson's praiseworthy object, will most effectually do so by requesting him to add their names to the list of subscribers.—EDS.]

Reginald Scot, the author of the "Discoverie of Witchcraft," first published in 1584, was on this subject over a hundred years in advance of his age; the first contender against the reality of witchcraft in England, and, Wierus being the first, the second in Europe. His book is also of interest, because, in confuting the opinions of his day, he necessarily gives them. Thirdly, he was greatly read at the time. Among others by Shakespeare, Middleton, King James, and S. Harsnet, afterwards Archbishop of York. That Shakespeare read it is, I think, shown by at least two passages; and James' Demonology was brought forth against—"the damnable opinions of two, principally in our age, whereof the one called Scot, an Englishman, is not ashamed in publicke print to denie, that there can be such a thing as Witchcraft: and so maintains the old errour of the Sadducees in denying of spirits. [An odd allegation against one whose tractate, 'A Discourse of Divils and Spirits,' was printed as a part of his 'Witchcraft,' and with a continuous pagination.] The other called Wierus a German."

From these causes and from its rarity, I would assay the reprinting of it. But a book then in advance of its age may, by most, be considered behind ours, and few are interested in old world wizardry, any more—perhaps less—than in the Hieroglyphics of Egypt, though not a few are in the so-called Spiritualism, the modern re-development of witchdom. This being the case, and my own means unable to risk a republication, I therefore—though opposed as a rule to limited issues—must restrict myself to the number of my subscribers, fixing my minimum at 100, and making it a necessary condition. that the book be paid for on delivery.

If possible the reprint will be from the first edition, but this—indeed all—are so scarce, that I have as yet failed to obtain even the loan of a copy. From personal collation I can however testify, that the first (1584) and second (1654) editions are identical, beyond such differences as ——*ly* for ——*lie*, and the like. Indeed, the errata noted on a blank space in the first have been, as a rule, corrected in the second. It is worth noting also that the first edition was the only one that appeared during the author's lifetime. Whichever be used, the reprint will be thoroughly collated with both, and will be a faithful copy. Copies of the very full but differing title pages of both will be given, and the specimen pages opposite may be taken as a sample of the type, size of page, width of margins, and paper that will be employed, the last named being the "toned paper" adopted by Ruskin. Any subscriber can, however, have white hand-made, for its actual difference in price; though, in my opinion, printing on ribbed paper is as unpleasant to the eye as print on the rippling of a stony brook. Glossarial notes as well as a few others will be added. Exclusive of these, the number of pages will be, so far as I can judge, rather over 570, those in the second edition being 441. The copies will be issued in a stout paper wrapper, that each may bind his according to his own taste. The price, should there not be more than 100 subscribers, will not exceed £2 2s., it not being my intention to seek for more than a slight recompence for my time and trouble. A larger list of subscribers will therefore diminish the cost of each copy.

Should this reprint meet with success, I would also gladly reprint James I.'s small counter-work, 84 pages, in the 1603 edition—consulted by Shakespeare before writing his Macbeth—collating the editions from 1597 to that of the Bishop of Winton's in 1616. But at present I only mention this.

BRINSLEY NICHOLSON, M.D.,
306, Goldhawk Road, Shepherd's Bush, London, W.

P.S.—The editions of 1665 and 1695 contain some additional curious matter by other hands. These will be inserted in their places.

Obituary.

FRANCIS KER FOX, M.D.

Our obituary this quarter comprises members of the Association in the prime of life, for whom a much longer career might have been reasonably anticipated. In the death of Dr. Fox, however, on the 7th of January, at the age of 78, we have to record the removal of one who might have years ago retired from active life, and felt justly entitled to enjoy a well earned and honourable repose.

Dr. Francis Ker Fox, the son of Edward Long Fox, the founder in 1806 of Brislington House Asylum, near Bristol, has for nearly sixty years been identified with that establishment, first as assistant to his father, and after the death of Dr. E. L. Fox, in 1835, as the senior partner with his brother, the late Dr. Charles Joseph Fox. The latter retired in 1867, when Dr. Francis Fox was joined by his son, Dr. Charles Henry Fox.

Dr. Fox studied in Edinburgh, Paris, and Gottingen, and was a graduate of Cambridge University. He was one of the earliest to recognise the merits of the non-restraint system, which he carried out consistently.

Dr. Fox was an eminently practical man. He was not a writer, and never contributed an article to this Journal. This is to be regretted, for one who had so long an experience, and so successful a practice, must have had much to say which would have been of the greatest interest and value to alienist physicians.

Dr. Fox was twice married: first to Janet, the daughter of the Rev. John Simpson, formerly Vicar of Congresbury, and afterwards of Keynsham, by whom he had several sons and daughters, amongst them being Dr. Edward Long Fox, of Clifton, Mr. Francis F. Fox, and Dr. Charles H. Fox; and, secondly, to Mary Bradley, the sister of the present Dean of Westminster, by whom he had several sons, including Dr. B. B. Fox, who has for several years assisted in carrying on the asylum, and is now a partner. As a local paper justly says, "Dr. Fox was a man of most urbane manners and great kindness of heart, and his death will be much regretted by the inhabitants of Brislington, by whom he, with the other members of the family, were highly esteemed." He will also be mourned by a much wider circle of friends.

HENRY CLIFFORD GILL, M.R.C.S.

Mr. Gill, born in 1846, entered as a medical student at University College in 1863, after having passed the matriculation examination of the London University. He distinguished himself during his college career by obtaining the gold medal in the class of medicine, and after holding the appointment of house physician at University College Hospital, he became a clinical assistant at the Brompton Consumption Hospital. Accident rather than inclination led him into the branch of the profession he subsequently pursued, and after six months' study at Bethlem Hospital, he went to the asylum at Nottingham; from whence, in 1869, he passed to the North Riding Asylum at York, as assistant superintendent, remaining there until 1874, when he succeeded to the sole charge of the York Lunatic Hospital, Bootham, within the walls of which he succumbed on Monday, the 12th February, to an attack of pleuro-pneumonia. In the course of his brief career, he shaped his conduct by an unflinching sense of duty, and spared no pains in carrying out his work. No slight share of the success of the jubilee meeting of the British Association at York was due to his energy and intelligence as secretary of the Museum Committee, in the discharge of which office he had much responsible labour in acquiring and arranging the interesting exhibits which went far to make the meeting memorable. His path necessarily restricted the circle of his professional acquaintance, but as a member of the Medico-Psychological Society, he regularly attended its meetings; and he also took an active share in the proceedings of the York Medical Society, the members of

which ancient body honoured him by electing him their President last year. Several of his papers read before them deserved much wider audience. By his few intimate friends, Mr. Gill was regarded with feelings of more than ordinary admiration, for he possessed an intellect of no common order. The most divers forms of scientific inquiry successively attracted him, and he did not cease until he had mastered, at least, their principles. Those who knew him well will miss a good friend, from whom much was to be learned, and many a germ for future thought obtained.—*British Medical Journal.*

We may add that Mr. Gill's communications to the work of his own special department were not numerous; but one on Hyoscyamine in the treatment of the insane was much appreciated, and the last number of the Journal contains an interesting record by him of insanity in twins. Ten years ago, when a fresh impetus was given to the investigation of the brain in the insane, Mr. Gill threw himself with ardour into the inquiry, and prepared a large number of microscopic sections, many of which are unsurpassed to the present day.

GEORGE MACKENZIE BACON, M.A., M.D.

The unsparing hand of death has suddenly deprived our specialty of one of its most valued members. Dr. Bacon, the Superintendent of the Cambridgeshire Asylum, succumbed on February 22nd to an attack of peritonitis, complicated with congestion of the lungs and kidneys.

His acute illness lasted only three days, though he had not been in his usual health for several weeks.

Having passed through his medical course at Guy's Hospital, and become a member of the College of Surgeons in 1858, Dr. Bacon joined the Lunacy Branch of the Profession as Assistant Medical Officer of the Norwich County Asylum in 1861.

From thence he was appointed, in 1864, Deputy Superintendent at the Cambridgeshire Asylum at Fulbourn, during the illness of Dr. Lawrence; and he graduated at St. Andrew's, the same year. After two years Dr. Lawrence died and Dr. Bacon succeeded him.

For 15 years he carried on the arduous and trying duties of the asylum without any Assistant, and it was only two years ago that he succeeded in getting an Assistant appointed.

During his period of office Dr. Bacon effected numerous alterations and improvements in his asylum, so that it was made more healthy, commodious, and cheerful, and it will now bear favourable comparison with the majority of English Asylums. The numbers increased under his superintendency from about 200 to 376.

Dr. Bacon was a clever alienist and a shrewd physician. He was also well-read in many scientific subjects, being an antiquary, a numismatist, botanist, and analytical chemist.

He was Secretary to the Cambridge Medical Society, at whose meetings he was a regular attendant and frequent contributor.

His contributions to Psychology and General Medicine were numerous; amongst them may be mentioned "The Handwriting of the Insane," "Crime and Insanity," "Lunacy in Italy," "On Athetosis," "On Epilepsy," and on "General Paralysis," besides many accounts of cases, mental, medical, and surgical.

He for a long time delivered Clinical Lectures at his asylum gratuitously and spontaneously, in acknowledgment of which the University of Cambridge conferred upon him in 1877 the honorary degree of M.A.

His sudden death came as a great shock to all who knew him.

At the asylum, where he spent so many years of his life, and where he was universally admired and esteemed, the blow has been very much felt. His funeral, which took place at Cherryhinton, near his asylum, was very largely

attended by his relatives, many medical friends, and the majority of the asylum staff.

Dr. Bacon was a man of solid ability, and sound judgment; amiable, hospitable, and generous to a fault. He was rather reserved and diffident, and the real amount of his work and his kind actions are known only by a few besides those he befriended and helped.

Dr. Bacon always took a lively interest in the welfare of our Association, and contributed numerous valuable papers to its Journal. He also often rendered assistance in an unobtrusive manner, without his name appearing, by forwarding to the Editors anything he had observed in the public prints which he thought should find a place or be commented on in our pages. In the capacity of one of the Secretaries at the Psychological Section of the British Medical Association, when it met at Cambridge in 1880, Dr. Bacon was untiring in his efforts to make the meeting a success, and read a valuable paper himself which led to a very interesting discussion. He also entertained members of the Section in the most hospitable manner, and placed his time entirely at their disposal.

Correspondence.

To the Editors of THE JOURNAL OF MENTAL SCIENCE.

GENTLEMEN,—My remarks on the subject of "punishment" in the January number of the Journal seem to have given rise to impressions quite different from what was intended by me. In offering an explanation of what I said on this subject, I wish it to be understood that I disclaim all intention of having represented either the views or the practice of Scotch asylum superintendents. While industrial occupation is held to be of paramount importance in the treatment of the insane, the general opinion in Scotland is strongly averse to the employment of coercive measures to induce patients to work. With most cases there is no difficulty experienced, but exceptional cases do sometimes occur where able-bodied and intelligent patients refuse to work, and expend their superfluous energies in stirring up strife and abusing their neighbours. These are the cases in which I recommended some form of punishment, or (to use a less objectionable although synonymous term) coercion, as being calculated to improve their self-control and insure peace and quietness to the other patients. For such purpose I consider hyoscyamine well adapted, for it not only restrains temporarily, but in the case of wilfully vicious patients it has the effect of preventing subsequent outbreaks of excitement. This result I do not attribute to any real medicinal value; the disagreeable physiological effects of the drug are sufficient to explain it, just as a sufficient explanation of the action of assafœtida in hysteria is afforded by its disagreeable, nauseous taste without necessitating any elaborate inquiry into recondite medicinal properties. In the one case patients are *frightened*, and in the other *disgusted*, into exercising their powers of self-control.

These views are the basis on which I have suggested various coercive measures to insure universal industry among patients not unfit for work from either mental or bodily causes. Of course a lunatic asylum is not a place in which such measures can properly be practised, and it is almost needless to say that they are not practised in this or, so far as I am aware, in any other asylum. My suggestions were thrown out as indicating what I consider would be a rational mode of treatment in certain cases, and as pointing to the absence of institutions midway between lunatic asylums and houses of correction, in which the more vicious of lunatics and the more insane of criminals might with advantage be placed.

I am, &c.,

ROBERT W. D. CAMERON, M.D.

Midlothian Asylum,
February, 1883.

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Appointments.

Francis, L., M.B., appointed Resident Clinical Assistant to the West Riding of Yorkshire Lunatic Asylum, Wakefield.

Gayton, Francis Cartaret, M.B. and C.M., Aberdeen, M.R.C.S.Eng., Assistant Medical Officer, Co. Asyl., Bodmin, Cornwall, appointed Senior Assistant Physician to the Surrey County Asylum, Brookwood.

Layton, H. A., L.R.C.P.Edin., and M.R.C.S.Eng., appointed Assistant Medical Officer to the Co. Asylum, Bodmin, Cornwall, *vice* F. C. Gayton, M.B., resigned.

Mitchell, T. H., appointed Assistant Medical Superintendent to the Ayrshire District Asylum.

Neil, J., M.B., appointed Assistant Medical Officer to the Portsmouth Borough Lunatic Asylum, *vice* A. N. Davis, L.R.C.P., resigned.

Edgar Asler Hunt, M.R.C.S.Eng., and L.R.C.P.Edin., has been appointed Assistant Medical Officer to the Eastern Counties' Asylum for Idiots, Colchester, but without extra expense to the Institution.

James Rutherford, M.D., of the Lenzie Asylum to be Medical Superintendent of the Crichton Royal Institution, Dumfries.

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PART 1.—ORIGINAL ARTICLES.

On the Seat of Consciousness. By JOHN CLELAND, M.D., LL.D., F.R.S., Professor of Anatomy, University of Glasgow.

In accepting the invitation kindly given me in this Journal last October to explain more fully my views on the relations of the nervous system to the operations of consciousness, I feel that I labour under more than one difficulty. The questions raised are not to be solved in the main by experiment, though the biologist of the present day is too liable to take for granted that his science can be forwarded by observation and experiment alone, and that there is no art required to draw just conclusions from these. Then for the most part my statements remain unassailed, and the *rôle* left for me seems to be principally one of reiteration and re-attack. On one point I cannot too much insist, namely, that to prove one theory false it is not necessary to be prepared with another which is true to replace it. The question whether the prevalent theory is correct must not be confused with any other; and I submit that the objections against the current doctrine of sensation, to which I gave publicity at the Liverpool meeting of the British Association in 1870, remain unanswered, not because they are unknown, but because, as I have found physiologists are ready to own, they are incapable of refutation.

What are those objections? They are two in number; but one is more important than the other, because it asserts the received theory to be inconsistent with anatomical fact. The received theory demands that each distinctly recognisable spot of the body must be joined by a separate tract with its own cerebral terminus, a thing which is anatomically quite impossible, and so obviously so that no competent anatomist will ask the question to be argued. As, moreover, in respect of common sensation a distinct tract from every spot which can be separately felt is required, so in the case of vision, the theory

demands a separate tract for every nerve termination of the retina capable of producing by its affection an appreciable point in the picture presented to the mind; while, in point of fact, the communications of the bacillary elements with the ganglionic layer and of that layer with the brain are of such a sort as to make it impossible that there can be a separate tract from each bacillary element to a terminus in the brain.

The other objection, namely, that the received theory informs us of no mode by which the mind of the child learns to associate the changes taking place at the cerebral termini with changes taking place at differents parts of the surface,—that is to say, to translate them as things happening at the surface,—is possibly so psychological as to be incomprehensible to some excellent persons, and undoubtedly may be said to allege incompleteness rather than falsity. Still, it is an incompleteness so great that, taking it into consideration, one is surely entitled to say that the received theory, after compelling us to view sensation as the arbitrary result of complex and unaccounted-for arrangements, leaves us with a difficulty facing us of such importance that we may well doubt the propriety of considering the theory as an explanation at all.

The prevalent theory of the seat of consciousness assumes that consciousness is entirely localized within a definite and unvarying part of the encephalon. No one may have expressed it so, but rather the assumption has been made, simply because it has not occurred to anyone that it could be otherwise. Proceeding on that implicit assumption, the next point has been to determine what is the exact extent of brain in which consciousness is localized. On this subject nothing can be known without experiment on the living animal, and as the experimental evidence could not be put more plainly than it has been by Professor Ferrier in his "Functions of the Brain," I shall use his account as a guide in my remarks; which will be the more convenient, as I shall have the satisfaction of reviewing the grounds of the opinions of one who considers as mere reflex action much which I cannot explain, save by supposing some faint consciousness to be present. Of such a character are the movements in frogs deprived of the brain which come under the following description:—"They are movements either of defence or preservation, and are in general adapted either to withdraw the part from the source of irritation or to repel the irritant itself. Thus the extended leg becomes flexed or withdrawn when the toe is pinched, and if the irritant be applied to the anal region, adapted movements

of both legs are made, with a view to remove it." (*Op. cit.*, p. 19.) These are the words in which phenomena familiar to every physiologist are described by one who, like Goltz, looks on them as mere reflex movements. In the last six words of the quotation he slips unpremeditatedly into a form of expression appropriate only to the imputation of consciousness. Think how improbable it is that frogs should possess a complex arrangement of reflex mechanism for the removal of foreign bodies from their anal region—animals not during life ever subject to the introduction of foreign bodies at that part to require removal. It is in the last degree puzzling to imagine how such a mechanism could have come to exist. A teleologist will find it hard to discover what purpose is served by it, and a Darwinian, even the least particular about the hypotheses which he accepts as facts, may find his imagination at fault to discover the advantage in the struggle for life which led to be preserved as ancestors to frogs those animals whose limbs responded in a particular way to irritation of the anal region.

I remember to have been much struck with similar movements in a large *tipula*, which I had caught by the head, crushing the head and part of the thorax between finger and thumb. The tail moved about uneasily, and the tip of the ovipositor seemed to seek for a convenient place to lay eggs, which it forthwith deposited on my finger; and as egg succeeded egg, when a larger egg than usual appeared, causing difficulty in its extrusion, it stroked it down with its hind legs until it had completed the delivery, and proceeded with the deposit of other eggs as before.

"When a drop of acetic acid is placed on the thigh of a decapitated frog the foot of the same side is raised, and attempts made with it to rub the part. On the foot being amputated, and the acid applied as before, the animal makes a similar attempt, but failing to reach the point of irritation with the stump, after a few moments of apparent indecision and agitation, raises the other foot, and attempts with it to remove the irritant. This experiment has been appealed to by Pflüger (who made it) and others as a proof of psychical or intelligent action on the part of the spinal cord." (*Op. cit.*, p. 20.) I accept Pflüger's conclusion as not only that of a physiologist of the highest authority, but as being, on examination of the merits, obviously correct. Dr. Ferrier dissents from it. He simply asserts that "it is an established fact that adapted actions, such as intelligence would also dictate, are capable of being called into play through our spinal cord

entirely without consciousness." That is an allegation rather than a fact, and one would like to know on what foundation "it is established." He proceeds to point out very properly that a reflex action is not necessarily confined to the side on which the irritation is applied, and that continuance of the irritation may bring the other leg into play by associated reflex action. No one will doubt this; but the action of the second limb ought on that principle to be exactly similar in kind to that of the first, in which case it would not cross the middle line, but would scratch the spot symmetrically corresponding on its own side with the point of irritation.

Dr. Ferrier appeals to the well-known experiments of Goltz to show that the apparently purposive movements of decapitated frogs are simply reflex, and considers that against attributing a sensory function to the spinal cord he has a strong argument furnished by the experiment in which Goltz raised the temperature of a vessel of water containing two frogs, the one decapitated and the other only blinded. The frog with uninjured brain died of tetanic heat-rigidity at a temperature of 42° C., while the decapitated frog sat perfectly still, and died of heat rigidity at 50° C. This frog, however, made the usual defensive movements, while sitting in the water, when acetic acid was applied to the skin. Well, that experiment is certainly curious, and appears to show that a decapitated frog is not made uncomfortable by the gradual heating of its whole skin, but it is remarkable that neither is it excited to reflex action by that cause. The experiment seems to show that local chemical irritation of the skin is felt by a decapitated frog, though the heating of its whole surface does not incommode it; but we know nothing of the nature of the discomforts which the frog possessing a brain feels on being heated, and have no right to assume that they are cutaneous or amount to pain. It ought also to be remembered in appealing to experiments of this kind, that no one alleges that a frog is as conscious when deprived of its brain as when possessing it. On each successive portion being removed it is granted that there is a diminution of consciousness, and on the other hand the abundant existence of reflex action is admitted by all. The only question is whether movements exhibiting purpose can be accounted for by calling them reflex, or whether they demand the presence of some trace of consciousness, however faint.

How careful we ought to be in attributing phenomena to pure reflex action without intervention of consciousness is

exemplified abundantly in human physiology. Thus it is known that in some persons irritation of a particular spot in the canal of the external ear is followed by violent coughing, and this might seem to be ordinary reflex action, but, as I pointed out in the "Lancet," 5th December, 1874, it is not so; for the immediate effect of the irritation of the ear is a sensation of tickling in the glottis, and only when this tickling has become unbearable does the coughing follow. Sometimes sneezing will follow sharp irritation of a spot on the surface of the nose, but the sneeze is preceded by the usual sensation in the mucous membrane. In both these cases there probably would be no spasm without the sensation which usually excites it. So also in vomiting from nausea the immediate effect of the irritant is the sensation of nausea, and it may be questioned if that sensation is not often a necessary link in producing the result. Again, winking on approach of a finger to the eye is often spoken of as a reflex action, while in point of fact there are two varieties of such winking quite different in their nature. When the finger is approached suddenly without touching, the wink is merely the effect of the desire of self-preservation outrunning self-control, but when the gently-approached finger comes into contact lightly with the tips of the eye-lashes a continuous winking is kept up as long as the titillating contact lasts. Contraction of the pupil, as we all know, may be produced by exposure to light or by adjustment of the eye to a near object, but it is not so generally (if at all) recognised that in the latter case the action has no title to be called reflex. The contraction of the pupil in looking at near objects is no mere reflex consequence of the position of the eye-balls; for if one eye be shut and the other adjusted, first to a far object then to a near object in the same direction, the pupil of the eye employed will be seen to contract, though not in every case as rapidly or completely as when both eyes are employed. This is in no respect different from the action of voluntary muscles. In one case you will to move, let us say, your hand without knowing the muscles employed; in the other you will to see the object distinctly at which you are looking, and the appropriate muscles in like manner perform the action.

I make use of all these examples mainly to show how careless physiologists are in imputing phenomena to reflex action, and imagining that they have thus explained them. Otherwise they are not of importance for my present argument.

No purposive acts have, so far as I am aware, ever been

alleged to take place in response to irritation of the trunk or limbs in either mammals or birds which have had the brain removed or severed from the cord. There is an acknowledged difference to that extent between the experimental evidence of the action of the cord in the frog and its action in higher animals; and that being the case, we are not entitled to argue that because there is no consciousness in connection with a mammalian cord severed from the brain, therefore there is none in connection with the frog's cord after removal of the brain; and in the circumstances one may well take into consideration that in the pithed frog the main mass of that embryological unity, the cerebro-spinal axis, lies behind the site of division, while in the pithed mammal it lies in front of it.

But Dr. Ferrier, after giving no better reasons than those that we have been examining for considering that the actions of the decapitated frog are quite devoid of consciousness, suggests, on the strength of them, the absence of consciousness in the acts performed by fishes, frogs, and mammals, after removal of the hemispheres alone. His words are:—"The mere faculty of adaptation is not necessarily a proof of consciousness, for, as we have seen, it exists in some degree in the spinal cord, and if it is not regarded as proof of conscious action on the part of the cord, neither can it be taken as such here; for it may be that the more complex adaptation manifested by the mesencephale is simply the result of more complex and special afferent and efferent relations." (*Op. cit.* p. 43.) This is really the argument of the prevalent school of physiologists put by a writer well able to do it justice, and only shows how careful we should be in estimating what is inferred in adaptation, whether exhibited by the cord or brain.

Of course, the accomplished physiologist, whom I quote, and those who have arrived at similar conclusions, are fully impressed with the appearance of consciousness in many of the actions performed by animals after removal of the hemispheres, and it is by a special gymnastic feat in the interest of science that they persuade themselves that they can be accounted for by reflex action; but, in doing so, it would be still more scientific if they could venture to sketch out in detail any arrangement whatever by means of which the individual phenomena could be reduced to reflex action. Take the examples of apparent vision after removal of the hemisphere of the frog. On the hypothesis of reflex action, according to Ferrier, "the leap to the side which the brainless frog makes, so as to avoid an obstacle, would be merely the resultant of two

simultaneous impressions, the one on the foot and the other on the retina." (*Op. cit.* p. 42.) It would be perfectly comprehensible that variations in kind and in degree of the stimulus applied to any organ of sense should lead to results of different descriptions; that the contact, more or less firm or prompt, of a rough or smooth surface, or sharp or blunt point, with the skin, should be followed by effects varying with precision according to the variety of the stimulus, or, in like manner, that the effects of light should vary according to the amount, the kind, or the abruptness of its application or removal. According to the theory of reflex action, it would be perfectly explicable if an experimenter were to get twenty different results by holding up twenty different coloured screens before the animal's eyes, and were to be able constantly to reproduce any one particular effect with one particular screen. But it is not possible by an allegation of reflex action to account for an unconscious animal avoiding an obstacle as the mechanical consequence of the difference which that obstacle makes on the picture falling on its retina. Though the consciousness of even an uninjured frog must be something enormously different from anything in our experience, yet even in a mutilated frog there must be some sort of vague but sufficient idea of an obstacle to enable the frog to avoid it. Every physiologist knows perfectly well that there is a great gulf even between the consciousness of the picture before the eye and the translation of it into objects at different distances; and it is an object at a definite distance which the mutilated frog is said to avoid. Therefore, there is a still greater gulf between the condition which enables the frog so to act, and the physical effects of the mere irritation or non-irritation of portions of the retina by the presence or absence of rays of light. Accepting, then, the facts as correct in the quotation given, how terribly absurd is the explanation which the quotation offers, and yet how uncommonly scientific to a careless thinker it sounds!

To my mind, it would be difficult to find anything more crucially decisive than this; and it seems unnecessary to multiply instances in which the phenomena exhibited by animals deprived of their hemispheres are more easily explained on the supposition that a certain consciousness is present than on the theory that there is none—seeing that the perpetual effort to explain them, without recourse to consciousness, is itself an admission that they suggest consciousness; while I frankly own that, if I have not succeeded in showing these efforts to be futile in the instances which I have passed in review, I am not likely

to succeed by criticising a greater number of them. If, however, my arguments have been successful, then I have shown that a certain amount of consciousness persists in mammals after removal of the hemispheres, in frogs after removal of the whole encephalon, and in insects after destruction of the cephalic ganglia.

In the case of birds the experiments termed removal of the hemispheres have, as a mere anatomical fact, consisted in removal of the corpora striata as well; and it does seem extraordinary that physiologists should have been so slow to appreciate so elementary a fact in comparative anatomy as that in birds the hemisphere-vesicle consists of a developed root-part of the vesicle, and an altogether undeveloped and mere membranous covering to represent the distributed part or mantle. Tiedemann was the first to point out in the development of the human brain that the hemisphere-vesicle was a hollow bladder, with the corpus striatum in the bottom of it. But it was left to Reichert to show that the whole vesicle was a single structure, divisible into two parts—one, the mantle, consisting of the whole convoluted part, with the exception of the island of Reil; the other, the root-part, exhibiting the corpus striatum interiorly, and the island of Reil on the surface. Comparative anatomy has long been acquainted with reptilian hemispheres exhibiting a well developed vesicle with a rather small corpus striatum in its floor, and with the ornithic corpora striata covered by a mere membrane of cerebral substance above; and when we take into account the superior intelligence of birds to reptiles, it is surely plain that in birds the functions of intelligence, relegated in mammals principally to the mantle, are performed entirely by the root-part of the hemisphere-vesicle. All this I described and illustrated with figures ten years ago in my "Animal Physiology"; and though I made no claim to bringing forward anything new, I am not responsible for the circumstance that so many honest workers prefer to follow the fashions rather than acknowledged facts in Nature not brought forward under sufficiently influential auspices. Perhaps these facts are inconvenient to those who think they have a group in nature expressed by the word sauropsida.

With regard to the experimental evidence as to the functions of the corpus striatum, it is notorious what different results have been obtained by different experimenters as the consequence of injury or extirpation—the differences no doubt depending on differences in the sites of lesion consequent on difference of method and difference of species in the animals chosen.

But the results narrated by Ferrier as obtained, both in his own experiments and those of Carville and Duret, from direct electrical irritation, entirely coincide with that which development and comparative anatomy would indicate as probable. "Apparently the individual movements excited from the various regions of the hemisphere are all thrown into action simultaneously, the flexors predominating over the exterior muscles. * * * In the corpus striatum there would appear to be an integration of the various centres which are differentiated in the cortex." (*Op. cit.* p. 161.) Into this last sentence the word "motor" might have been introduced before "centres," and then the reader would understand that the result amounts to this: that the irritation applied to a corpus striatum affects all the motor tracts at once, which are gathered together from different parts of the hemisphere. Electric irritation simply throws no light on the relations of either the corpus striatum or the hemisphere to sensation and the operations of intelligence; and thus the teachings of experiment, as far as they go, are in perfect harmony with the anatomical doctrines, that the whole hemisphere and corpus striatum are one organ, the connection of which with the rest of the brain passes through the part bounded above by the optic thalamus and below by the crus cerebri.

The sum of this evidence is—first, that consciousness is not a function confined to the hemisphere-vesicle, as is most evidently shown by experiment on animals with lowly organized hemispheres, although, probably on account of the large proportion of the hemispheres to the rest of the nervous system, their removal in the higher animals is followed by greater loss of function than in the lower; secondly, the very different development of the hemisphere-vesicles in birds from what is found in reptiles and mammals points distinctly to the conclusion that in different animals the same functions, including those of consciousness, may be performed by different parts of the hemisphere-vesicles, though, doubtless, we may await with interest the results of further experiment on the motor relations of different regions of the hemisphere-vesicles in birds.

The first of these propositions is evidently favourable to my theory of the seat of sensation. If once you cease to be able to limit, or rather, once you appreciate that you cannot definitely limit the seat of consciousness, there is no difficulty in believing that consciousness may extend along the nerves. No doubt in lesions of the cerebro-spinal axis you find that the consciousness continues in connection with the larger mass of

nervous substance, and after division of a nerve the distal part can no longer affect or be affected by the consciousness; and thus, neither spinal cord nor nerves give evidence of an independent connection with consciousness. But if they have such a connection through continuity with the main mass of the brain, then the continuity must be functional as well as anatomical; the communication must be in that condition in which alone nervous substance can do any work.*

Therefore, I judge that we feel the irritation of a nerve-extremity in virtue of the functional continuity of the nerve with the brain. Probably, in health, no part supplied with cerebro-spinal nerves is ever completely cut off functionally from the brain. The muscles have a certain amount of constant tonic contraction, differing from the complete relaxation following division of the nerves supplying them, and probably also there may be a constant slight residual activity in the sensory nerves; but if my theory be true, then, in directing attention to a part of the body, the sensory nerves must (it appears to me) enter into the active condition by stimulus from

* Having occasion thus to allude to the active condition of nerve substance, I am constrained, though in the position of defending views of my own that are unsympathised with, to refer to an article on "Inhibition" by Dr. Lauder Brunton, which appeared March 1st, in *Nature*. The well-founded reputation of Dr. Brunton, and his admirable work, dispose one to receive favourably the views which he may suggest; but we may well pause before accepting his proposed explanation of inhibitory phenomena by the assumption of an interference of vibrations. The active condition of nerve is an altered state of nutrition, involving the cessation of certain chemical and other processes, and establishment of others. No doubt the immediate result of these changes may be an unknown vibration, just as was suggested by Dr. McDonnell in 1875 ("Lectures and Essays" p. 217). The immediate result of analogous changes in muscle is change of form, and there can be little doubt that the molecular changes are also analogous which lead to alteration of form in amœboid corpuscles and to the exercise of the specific functions of secreting and absorbing corpuscles. Even so, in the case of nervous structures, it is certainly possible that vibrations may be the immediate result of the known nutritive changes which accompany the active condition; but we have no proof of the existence of such vibrations, and the assumption of them seems singularly inconvenient in the explanation of the stimulus to muscular contraction, in which it appears more probable that the chemical and electrical change in the nerve directly propagates similar change in the muscle, than that the two are separated by the intervention of a *tertium quid*. In these circumstances it seems scarcely a happy idea to explain inhibition as analogous to the phenomena of interference in light and sound. With greater probability, explanation might be sought in the different modes of connection of different poles with the protoplasm of nerve-corpuscles. One can conceive (though this also is a mere conception) that by such difference of origin, or by some other means, a certain resistance might be offered to the passage of the irritation into channels which, once entered, might yet be very efficient to divert it from channels entered more easily.

the centre, which is a thing with an importance both theoretical and practical. The theoretically important point is that in that case sensory nerves are capable of a centrifugal as well as a centripetal order of sequence in the entrance of their successive parts into the active state, a centrifugal current, as it is often called; and if this be the case, we are in a position to believe that the motor fibres to the muscles can, at the same time, be the means of communicating muscular sense. The practical point, to which I allude, is this: that if it be really the case, as I do not doubt, that when attention is directed to a part of the body, the sensory nerves of that part are roused into activity, there is an obvious physical advantage gained by distracting a patient's attention from a local malady.

The other propositions at which we arrived, guided thereto by consideration of the hemisphere-vesicles and intelligence of birds, namely, that the same functions, including those of consciousness, may be performed by different parts of the hemisphere-vesicles in different animals, brings us to the subject of localization of functions in the hemispheres. Now, it ought to be distinctly understood that I have never expressed the smallest scepticism as to the results of Ferrier and others who have worked in the same direction. There is no reason that I should. Their results do not in the least clash with my views. I even own to some little surprise, that my most friendly critic in this Journal should think I have "hastily dismissed them," in my lecture on the "Relation of Brain to Mind"; but fancy I have been myself to blame by being less cautious on this subject of localization in my earlier memoir than in the later lecture. It is to be remembered, however, that the memoir on the "Physical Relations of Consciousness" was written so long ago as 1870. Undoubtedly the experiments of Hitzig and Ferrier show a special relationship between exceedingly limited and definite areæ of the brain and the movements of limited portions of the body or action of certain of the senses. They seem to indicate that tracts in connection with different muscles and organs of special sense have their cerebral extremities at these different areæ. But how little this tells us as to the details of the relationship of these particular areæ to consciousness! It tells us simply their relationship to certain parts of the periphery. But, as centres of voluntary movement, they must have relation also to the parts of the brain in connection with which those operations of consciousness are going on which lead up to the movement.

Now, as regards the connection of mental operations with the

hemispheres, three theories may be distinguished. According to one of these, different portions of the hemisphere are the organs of different mental qualities; and that is distinctively the theory of Gall. According to another hypothesis, individual memories and other notions are represented as stored up in individual nerve-cells, as if they were so many quantities of matter, or of some condition of matter; and that idea undoubtedly crops up over and over again in the language used by many biological writers of the present day, though I am not aware that anyone has attempted to demonstrate its truth. According to a third view, there is no foundation for believing that either the qualities or the acts of the mind are lodged in so many separate receptacles, and that is the position which was taken up against Gall's phrenology before the second hypothesis crept in.

It is not at all obvious that either of the two first theories throws one bit of light on the results as to motor and sensory termini obtained by experiment; while, on the other hand, the third is quite as compatible with those results. I have not the slightest idea how it is that the will acts on hosts of muscles of which the mind is ignorant, to make them take each one its just part in bringing about a result of which the mind is conscious, and do exactly what the will commands; neither, therefore, can I be expected to tell how it initiates those actions in cerebral termini, of which it is likewise ignorant. It is as if unknown imps obeyed the will. But while I can add no light myself, I maintain my liberty to point out that the light declared to be seen by other people is no light at all.

Lunacy Legislation in Holland. By F. M. Cowan, M.D., Physician to the Provincial Lunatic Asylum, Meerenberg, near Haarlem.

As in France, so in the Netherlands there is but one law relating to the care of persons of unsound mind. It was issued on the 29th of May, 1841, and consequently is posterior by about three years to the French law.

Although this law had worked in a satisfactory way for upwards of forty years, the reiterated complaints of superintendents that the different asylums were overcrowded, decided the legislative powers to take the subject seriously in hand, and the result was a project of an entirely new law. Both the existing law and the projected one have their faults, still I

believe the general opinion of alienist physicians in Holland to be that it would be far better to revise the old law and to add some necessary articles to it, than to introduce the new one.

As perhaps our English colleagues may feel interested in the subject, I wish to glance at our present and our projected legislation relating to the insane, and to compare their respective merits and demerits.

I need not here dwell upon the state of the insane before 1841; suffice it to say that, by the strenuous efforts of Schroeder van der Kolk, the lot of these unfortunate sufferers was vastly improved, and that they were henceforth treated as human beings.*

One of the first things the law of 1841 had to deal with was the widely different conditions of existing asylums and hospitals for the reception of lunatics. They were divided into medical asylums and asylums for incurables; at the same time it was enacted that in future no more asylums for incurables were to be opened. Private houses receiving more than one lunatic not related to the occupants, are to be considered as asylums. The legislature, anxious to isolate persons of unsound mind from those suffering from other diseases, added a clause by which people afflicted with ordinary diseases were to be treated in the same building with lunatics, only in urgent cases, with royal consent, and then always in separate wards.

Who can tell how often this article has clashed with the one which defines private houses as asylums?

It requires royal consent to open an asylum, and such consent brings with it the obligation to submit to such control and supervision as Government may think fit.

It need hardly be mentioned that in this country, as everywhere else, countless reclamations have, at different times, arisen from people who, considering themselves unjustly detained, loudly complained of the infringement upon their personal liberty. It, therefore, was a wise measure to subject the admission and the residence of lunatics to certain formalities, in which medical and judicial powers go hand-in-hand.

Whenever a person is thought insane, his friends or relatives obtain a certificate to that effect from a physician. This certificate, which must be signed within 14 days of admission,

* The history of this reform, and the condition of our asylums in 1853, are given in an article, "The Asylums of Holland: their Past and Present Condition," by Dr. D. Hack Tuke, in the "Psychological Journal" of the following year.

is put into the hands of a solicitor, who addresses a request to the president of the tribunal under whose jurisdiction the patient in question resides. This request petitions the authorisation for preliminary admission into an asylum, which must be expressly named.

If a physician attached to the medical staff of an asylum signed the certificate, the preliminary admission must not be into that asylum.

The president of the tribunal being satisfied that the person mentioned in the certificate is really insane, then consults the officer of justice (public prosecutor), and decides that such a person be received in the asylum named in the request. Such a decision may be carried out immediately, it need not be previously registered, is not pronounced publicly, and is only valid for fourteen days after it has been passed.

Once the patient is admitted into the asylum, the physician, under whose care he is there placed, has to observe him accurately for twenty-eight succeeding days, to make his daily notes, and at the end of that time to draw up a *résumé* of the case, in which he declares it necessary or not that the stay of such a person in the asylum should be prolonged "for a year or so much shorter time as may prove necessary for recovery."

At the end of this probationary year, this certificate is to be renewed for another year, and so on.

Superintendents of asylums must give notice of the admission, dismissal or decease of every patient, to the officer of justice under whose jurisdiction the asylum stands, and to the corresponding official, attached to the tribunal that first authorised the patient's admission.

In the case of a dangerous lunatic, the local authorities of a community may order his provisional admission into an asylum, under obligation of giving notice thereof to the officer of justice within twenty-four hours.

A register, in which the names of all patients are inscribed, is kept in every asylum, and is examined by the different inspectors, who sign it. After a sojourn of three years in an asylum, the patient is placed under interdiction, *i.e.*, he is placed under the tutelage of a "curator" (guardian) and is considered as a minor. This article of the law is easily and frequently eluded by the relatives taking a patient out of the asylum, be it only for a single day, and having him re-admitted immediately after, when all the formalities have to be gone through anew.

In order to provide against illegal detention, two inspections are ordered by the law. The one by the officer of justice, takes place quarterly, the other must be held at least once in three years, by the inspectors of lunatic asylums. Besides, the governors of the provinces have free access as often as they may think fit, and are to send a report to the Minister of the Interior. However, as far as I know, these functionaries very rarely visit.

The officers of justice are always accompanied by a medical officer, called the medical inspector of the province, and visit very regularly; so do the inspectors, who, although only obliged to come at least once in three years, always do so once a year.

Whenever the inspecting officials consider a person illegally detained they may order his release. I am proud to say, such an order has never yet been given.*

In order to prevent, as far as possible, the public peace being disturbed by persons formerly inmates of asylums, the law contains an article by which such cases have been provided for. Whenever the dismissal is demanded of a patient with suicidal tendencies, or dangerous to others, the superintendent acquaints the officer of justice with the case, who then forbids the release of such a person.

Last of all, let me add that Article 8 orders every province, in which no asylum exists or need (?) exist, to treat with the managers of other asylums, in order suitably to provide for their insane patients.

The new law was projected in 1880, and from the first its provisions were rather unfavourably received by several members of the second Chamber of the States General. The effect of the proposals upon the alienist physicians was to cause an outburst of indignation. Still it is only due to say that it contained several improvements upon the present legislation relating to the insane.

The main points of difference between the existing law and the projected one may be briefly summed up under five heads:—

1st. State control and supervision over the insane who are not treated in asylums—a point now altogether neglected.

2nd. Increase of legal guarantees for the proper treatment of patients in asylums.

3rd. Provisions that there be a sufficient number of asylums —a matter not stringently enough enforced by the present law.

* The value of this fact must, of course, depend upon the vigilance, independence, and courage of the inspectors.—[Eds.]

4th. Modification of the formalities necessary for admission and discharge of patients, and likewise increase of measures guarding against unjust admission or detention of sane persons.

5th. Suppression of obligatory interdiction after a three years' stay in an asylum.

As to the first point—State control and supervision over lunatics not treated in regular asylums—this was unanimously considered a great improvement, and it may well be thought a grave omission in the present law that no provision is made for the care of these persons. Statistical returns showed that in 1879 there were about 1,750 insane people not living in asylums, and there are excellent reasons for believing that these figures remain below the real number. Indeed, it may be called an anomaly that provincial and municipal asylums, accurately and conscientiously managed by respectable citizens, should be subject to severe and repeated inspections, while people who may consider the care of a lunatic merely as the means of making money, with very little, if any, regard to his welfare, should be exempt from any supervision whatever.

The omission of a definition of insanity in the new law was considered an improvement. The diagnosis of insanity depends entirely on the psychological analysis of the whole individual, on a dissection of his character, Bacon would say. In fact to quote the writer of a paper which appeared in this Journal some time ago :—"If we met a person here, who went about naked and could only count to five, we should consider such a man an idiot, while if he had a black skin and promenaded the banks of the Congo, he might probably be considered a specimen of average intelligence there. Again, if we heard his Grace the Duke of Omnium order out his carriage and four, nobody would consider this order strange; but if a poor bricklayer were to give the same order he would most likely be thought insane." The present law contains the following definition :—"All persons entirely or partially deprived of the free use of their intellectual faculties shall be called insane." It is superfluous to remark that it is insufficient and rather too metaphysical; besides, it is impossible to give an exact definition of disease, and the same thing holds good for insanity, which after all is only a species of brain disease.

The most odious articles in the projected law, were those relating to the increase of legal guarantees for the proper treatment of patients in the asylums.

It was thought the quarterly inspections by the officers of

justice were not frequent enough, and henceforth these officials, accompanied by the medical inspectors of the provinces, were to have free access whenever they might think fit. The quarterly inspections were to be held as before.

The Association of alienist physicians protested against this measure, which they considered a violation of privacy on the following grounds :—

That the visiting officer of justice will be continually troubled by patients considering themselves unlawfully detained, and this will consequently add to the turbulence and agitation of several wards;

That he will most likely misinterpret many expressions and acts of patients;

That it seems an insult to a physician to see an incompetent umpire judge his rule of action;

And last, not least, that several patients will greatly dislike the idea of being continually under the eye of justice, like so many criminals.

In fact it would be very wrong to have strangers visiting the premises too frequently, and especially visitors who might consider it their duty to keep testing the mental powers of the different inmates. There should be a boundary wall round every asylum—a wall which, to repeat the expression of a British physician, serves to keep the public out, not to keep the patients in.

Another article (Art. 8), not much relished by boards of managers but applauded by physicians, ordered that as soon as an asylum contained more than twenty patients, at least one physician was to be resident; besides, the Crown was to fix the maximum number of patients and the minimum of physicians to every asylum. Asylum physicians, it was said, were overburdened with work and could not devote as much time as they might wish to scientific work. However, strange to say, a little further on the projected law proceeded to add a large mass of writing-work to their daily business.

The commission charged with the making of the new law, very truly remarked that in no country were so many formalities to be gone through and so many intermediate persons required for admitting a lunatic into an asylum, and drew the very logical conclusion that these formalities required simplification. England, France, Belgium, and Sweden were cited as countries where these things were better, *i.e.*, more easily, managed. However, instead of simplifying, the commission introduced only a slight modification. Instead of

sending the petition to the president of a tribunal through the medium of a solicitor, it was to be sent direct to a justice of the peace. The reason lay, it was said, in the fact of the tribunals often being at a great distance, and consequently more difficult to reach than a justice of the peace. It is a fact, that a justice of the peace has a smaller district under his jurisdiction than a tribunal, still even these districts often are too large to reach the justices easily. Why then, it was asked, not grant the local authorities (burgomasters) the power to authorise a patient's admission? These functionaries are always easily and quickly reached, and time, which is so precious for the patient's recovery, is not lost. Moreover, if a burgomaster authorises admission, there is no objection to let the tribunal pass sentence for further residence in the asylum. This would have the advantage that the judicial powers controlled the administration.

The power of interference given to officers of justice was so much increased, that an article even appeared ordering physicians to send a short account of the patient's state to these officials daily, during the first three days. Now it is altogether inconceivable what interest a judge can possibly place in a dry summing up of symptoms; and what insight can this measure give a non-professional man in a case? Besides, what is a physician to note in a case of *folie circulaire*, in many cases of monomania, or in the case of a malingerer?

The physician was henceforth to be placed in an altogether inferior position with respect to the judges. Not only were they to decide whether a person was insane or not, but Article 31 goes still further. It says that, "whenever the officer of justice finds a person in an asylum who has been unlawfully admitted, or is being so detained, he shall order his release, etc. When he meets a person there who, though duly and legally admitted, is no longer insane, he shall order his release if the physician agree with him as to such a person's sanity. If the physician does not agree, then the tribunal (not medical) is to decide." This clause contains a curious contradiction. If the physician agrees with the justice that a patient is recovered, he certainly does not require an order to release such a person; and if he does not agree, the *arbitrium* of a professional man is to be set at nought by the *super-arbitrium* of a body of non-professional men.

Article 22 of the new law contained an addition to the present one, authorising the judges to hear the patient himself, the physician being present or not at the examination. In the now existing circumstances, it is very expressly said that "in

no case shall the lunatic be heard." In fact the amount of trouble a man, suffering from delusions of persecution, may give a judge, who wishes to thoroughly investigate his case, will be tremendous.

Article 23 so far modified the present law, that it decided that after at least eight, and within fourteen days after admission, the physician in charge was to send his *résumé* of symptoms and certificate as to the insanity of the patient to the tribunal. Why shorten the time for observation from twenty-eight days to a fortnight? In cases exhibiting, as Dr. Maudsley has it, "all that imagination can picture of the ridiculous, the noisy, the fantastic, the furious, the violent, the disgusting," a very short time will suffice to diagnose the disease; but how in cases of monomania, etc., in which very often indeed four weeks are too short a period to form a diagnosis?

I just now mentioned an increase of writing to be done by physicians, in case of the law being passed. One of the tasks is this: During the first fortnight after admission the physician shall write his notes on the case daily, then during at least six months weekly, and afterwards monthly. This, it was said, was introduced to make sure that the patients were visited regularly.

I have carefully perused the instructions of several of our Netherland asylums, and have found it ordered in them all that the physicians shall see their patients twice a day; as far as I know, the inspectors never complained of any negligence in that respect, so that what called forth this disagreeable suspicion was a riddle to us all. The case books always contain concise accounts of any intercurrent disease, and, as a rule, the post-mortems. Besides, what will there be to mention about the majority of asylum inmates, viz., the hopelessly demented, people for whom life passes as a blank?

Article 24 orders that in every asylum a register shall be kept, in which the physicians shall daily inscribe the names of patients placed under mechanical restraint and the particular means employed.

Although I have the honour of belonging to the medical staff of an overcrowded asylum, containing upwards of 900 patients, in which, thanks to the brave efforts of our superintendent, Dr. van Persyn, strait waistcoats, gloves, and so forth, are unknown instruments, and in which no restraint in the widest sense has been applied for upwards of 25 years, I cannot but protest against this Article. Restraint is a system as well as no restraint; both have their warm partisans, and it is only due to each that we should respect another's con-

viction even if we do not share it. However laudable it may seem to propagate this measure—the system of no restraint—I believe that if it were introduced, the tribunals might just as well decide what medicine is, or is not to be, given to the patients.

Article 26 obliges every Netherlander who sends a fellow-countryman to a foreign asylum to give notice thereof, within eight days, to the officer of justice under whose jurisdiction the patient lived whilst residing in this country.

I have only a little to say with regard to this clause. Lunacy is quite as little a fashionable disease here as anywhere else, and the amount of untruths told by friends and relatives to conceal the occurrence of the disease in members of the family, is quite as stupendous. For this purpose of concealment, as well as to elude the number of formalities required for admission, the well-to-do classes often send their sufferers to Germany.

I mentioned the care for a sufficient number of asylums in the third place. Article 10 decides that there shall be one or more State asylums. They were to receive such persons who depend upon Government for maintenance, and in the first place lunatic criminals; in fact, it was to be an imitation of Broadmoor. Under existing circumstances, Government has contracted with some asylums for the reception of these people, and has thus, unwillingly, been setting several provinces a bad example.

This highly commendable plan was coldly received by some members of the legislature.

Conclusion.—All parties agree that the law of 1841 has worked well, and consequently, although its weak points have come out during these thirty years, still it should not be ruthlessly destroyed.

Both judicial and medical authorities received the project for the new law very coolly, if not with aversion. I have heard officers of justice declare that they did not wish for the heavy amount of responsibility which it heaped upon them, for the simple reason that they could not use it; that although they *seemed* the first person, they must necessarily be the docile followers of the physicians. The opinion of physicians, and especially of alienists, I have already given above.

A thorough revision of the now existing law is what would find most favour, viz. :—

1. Suppress the definition of insanity. Every physician who has to do with lunatics knows what is meant, though he may not be able to express it in words.

2. Simplify the formalities for admission of patients into asylums. This may be readily done by granting the local authorities the power of allowing the provisional admission for four weeks, while the tribunals pass sentence for the prolongation of residence. As I have already said, these authorities are always at hand, and the assistance of a solicitor might be dispensed with.

3. The present law leaves the care for the insane to the provincial authorities, and orders those provinces in which no asylum exists, or need exist, to deal with the managers of asylums for a certain number of beds. This is simply an anachronism. An asylum *need* exist in every province, and an Article should be inserted requiring every province suitably to provide for its insane inhabitants within the limits of that same province.

By all means let us follow the example of England, and let us have our Broadmoor. No country should be without one.

It would be a fine measure to fix a maximum number of patients for every asylum. The appointment of a minimum number of physicians might, perhaps, be an interference with certain household arrangements.

4. Suppress the obligatory interdiction after a three years' stay in an asylum. As I have already said, this part of the law is easily and frequently evaded. And, besides, is it not ridiculous to go through an expensive and tedious procedure in the case of a pauper lunatic, of whom it need not be feared that he will mismanage what he does not possess, viz., property?

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*Caffeine, in its Relationships to Animal Heat and as Contrasted with Alcohol.** By W. Bevan Lewis, L.R.C.P.Lond., Senior Assist. Med. Officer, West Riding Asylum.

The observations now to be recorded relative to the physiological action of Caffeine upon animal thermogenesis were carried on several years ago as part of a series of experiments in the same direction with numerous potent alkaloids, atropine, solanine, hyoscyamine, strychnine, and others. †

The experiments with Caffeine and Alcohol ‡ were to me a

* While the title of this article may seem at first sight to have little to do with "Mental Science," its great importance in relation to the treatment of mental as well as other diseases, and the use of alcohol in the asylum dietary, must be admitted.—[Eds.]

† "Calorimetric Obs.," West Riding Asylum Reports, Vol. vi.

‡ "Physiological Action of Alcohol in Relationship to Animal Heat," "Journal of Mental Science," Vol. xxvi.

source of special interest from a consideration of the importance of both as entering so largely into the dietetics of modern life, and I had purposed greatly enlarging the scope of such observations when the restrictions of the anti-vivisection enactments compelled me to abandon my object. Several important papers have lately appeared upon the physiological and therapeutic actions of Caffeine; and, as the active principle of Coffee cannot fail to prove of interest to the physiological enquirer, especially from our present point of view, I have ventured to detail the results of my observations, incomplete though they be, as a small contribution towards our knowledge of a subject of general interest.

The calorimeter made use of was one recommended for such observations by Dr. Burdon Sanderson. It was repeatedly tested by various methods to gauge its accuracy, and always with satisfactory results. The water in the outer chamber was kept in constant movement, and an extremely sensitive centigrade thermometer used in taking its variations in temperature. As to the atmosphere of the room, deviations in temperature during the course of these observations were carefully recorded, and found always to be insignificant, every precaution having been taken to ensure an equable temperature and the elimination of any probable fallacy.

The animal chosen for these experiments was the rabbit, and the alkaloid in solution was injected into the stomach by a suitable and ready arrangement. Each rabbit was carefully weighed, and its normal heat production in the calorimeter and variations in body temperature noted prior to the administration of the drug—the same animal never being employed for a second series of observations. It will be seen from the tabulated experiments that each observation is devoted to three problems:—

α. The total heat formation of the animal expressed in gramme-units for periods of quarter of an hour before and after the use of the alkaloid.

β. The diminution, augmentation, or stationary condition of the body temperature.

γ. The total heat formation for each interval expressed in gramme-units per gramme of body weight.

As the animals differ much in weight they would consequently shew great variations in heat production on this account; hence the last estimate is necessary as affording at a glance the proportional heat formation in the various animals operated upon. The following Tables afford *typical results* ob-

tained from a large series of experiments under different doses of the alkaloid. We will begin with the minimum doses administered.

Table 1.

(Observations ¼ hour each.)*

Rabbit given 2½ grains of Caffeine.

Weight of Animial, 2198 Grms.	Total Heat-Formation.	Loss or Gain in Body-Temperature.	Fresh Heat-Formation per Gramme of Body-Weight.
Observation 1.	2633	— 1216	1·19
„ 2.	3850	Nil.	1·75

The amount of Caffeine here given was not above ·00113 grains for every gramme of the animal's weight, and in the succeeding experiment a still smaller dose was given (the rabbit being much heavier), corresponding only to ·001 grain for each gramme of body weight.

Table 2.

(Observations ¼ hour each.)

Rabbit given 3 grains of Caffeine.

Weight of Animal 2940 Grms.	Total Heat-Formation.	Loss or Gain in Body-Temperature.	Fresh Heat-Formation per Gramme of Body-Weight.
Observation 1.	3587	— 105	1·17
„ 2.	4746	— 100	1·57
„ 3.	997	— 571	0·298

In these two animals the normal heat formation prior to administration of the Caffeine varied betwixt ·96 and 1·17 heat-units for each gramme of body weight; hence we find the immediate result of the alkaloid to be a *slightly augmented heat formation,* the highest registry 1·75 being attained within half

* The figures in each column represent *gramme-units of heat.*

an hour where the stronger dose was given. In the last case the third observation reveals a fall far below the normal (0·298 gr. un.), as the sequel to the primary heat augmentation. Corresponding to this increased formation and evolution of heat, we likewise observe, in Table 2, a loss from the body-temperature amounting during the last interval to 571 heat-units, the rabbit's temperature having fallen from 102·7° Fah. to 101·8° Fah.; and in Table 1, when the stronger dose was given, 1216 heat-units were lost, a fall in temperature from 103·5° Fah. to 101·9° Fah. It will, however, be noted that in the last case during the second interval the animal's temperature remains stationary, the loss or gain being stated as nil, and that this corresponds also to the period of greatest heat formation. Thus, in doses corresponding to little over *one thousandth of a grain* for each gramme of body weight, we have as a result a *primary slightly augmented heat formation* with *a lowering of body temperature*—the latter most marked, but more quickly checked, where the larger dose is given.

Let us now give our attention to somewhat larger doses of the alkaloid. In Tables 3 and 4, where two or four grains respectively of Caffeine have been administered, we see on reference to the animal's weight that the actual amount given is about the same in both cases (·0013 grains per gramme of body weight), but above that given in Table 1.

Table 3.

(Observations ¼ hour each.)

Rabbit given 2 grains of Caffeine.

Weight of Animal 1525 Grms.	Total Heat-Formation.	Loss or Gain in Body-Temperature.	Fresh Heat-Formation per Gramme of Body-Weight.
Observation 1.	3867	— 1265	2·53
„ 2.	1833	— 499	1·20
„ 3.	3084	+ 284	2.02
„ 4.	4134	+ 354	2·7
„ 5.	3177	+ 424	2·083
„ 6.	3850	Nil.	2·52

Table 4.

(Observations $\frac{1}{4}$ hour each.)

Rabbit given 4 grains of Caffeine.

Weight of Animal 2928 Grms.	Total Heat-Formation.	Loss or Gain in Body-Temperature.	Fresh Heat-Formation per Gramme of Body-Weight.
Observation 1.	2729	— 1494	0·932
,, 2.	7165	— 534	2·44
,, 3.	6787	+ 814	2·31
,, 4.	4247	— 279	1·45

In Table 3 the most striking feature is the *prolonged duration* of the stage of augmented heat formation, which, for a period of one hour, is represented by two gramme-units per gramme of body-weight during each observation, and at one period the product reaches 2·7 gramme-units. The first two observations in this Table represent an exceptional condition, which occurs with some animals when placed in the calorimeter. In this instance the first two observations give the results prior to administration of Caffeine, and yet we find an augmented heat-formation and a large primary evolution from the body-temperature, both conditions greatly diminished during the next interval at the end of which the alkaloid was given. This primary action is due to the comparatively unnatural state in which the animal is placed, and the stimulus to heat-formation appears to be induced by the chill of the surrounding fluid where the balance betwixt the temperature of the latter and the atmosphere has not been fairly established, as was the case during the earlier stage of the experiment. Towards the termination of the first half hour a more normal condition of thermogenesis has set in, and now, Caffeine being given, a further rapid increment of thermal units takes place, *together with an addition to the body temperature.* This addition of heat-increments, which tends to re-establish the norma of temperature, proceeds for three quarters of an hour.

In Table 4, the first observation represents the normal state of the animal in the calorimeter, the three remaining observations being the results of the four grains of Caffeine. Here

also the immediate effect of the surrounding fluid is to cause a loss from the body-temperature of 1494 heat-units, but no augmentation of the fresh heat-formation occurs as in the previous experiment. The heat-formation is, under the operation of Caffeine, augmented to about the same extent, and a sudden attempt at restitution of body-temperature is also seen at the third observation.

A further increase of the dose of Caffeine shows in the strongest light the characteristic action of the alkaloid when given in large quantity. Three experiments may be here cited as typical of the conditions thus induced. In Tables 5, 6, 7, Caffeine was given in doses varying from $2\frac{1}{2}$ to 4 grains, which, when the relative weight of the animals is considered, correspond respectively to ·0018 grs., ·0021 grs., and ·00218 grs. for each gramme of body weight. In the two last experiments, therefore, the dose given was quite double that of the experiments detailed in Tables 1, 2.

Table 5.

(Observations $\frac{1}{4}$ hour each.)

Rabbit given $2\frac{1}{2}$ grains of Caffeine.

Weight of Animal 1343 Grms.	Total Heat-Formation.	Loss or Gain in Body-Temperature.	Fresh Heat-Formation per Gramme of Body-Weight.
Observation 1.	2055	— 744	1·53
„ 2.	5010	— 122	3·73
„ 3.	6206	+ 186	4·62
„ 4.	4308	+ 61	3·20
„ 5.	2850	+ 183	2·12

An explanation is required relative to this last experiment (Table 5). As before stated the loss from body-temperature, which occurs in the normal state when the animal is placed in the calorimeter, appears partially due to the unnatural surroundings and partly to the struggles which most rabbits make when handled and confined within the chamber, a transient and abrupt evolution from the body-temperature usually occurring at this period.

Table 6.

(Observations ¼ hour each.)

Rabbit given 4 grains of Caffeine.

Weight of Animal 1880 Grms.	Total Heat-Formation.	Loss or Gain in Body-Temperature.	Fresh Heat-Formation per Gramme of Body-Weight.
After much exertion and struggling.	*	— 1735	*
Observation 1.	4315	— 351	2·29
„ 2.	10095	— 171	5·37
„ 3.	8019	+ 85	4·26
„ 4.	5452	+ 85	2·90

In the experiment illustrated by Table 6, I had to deal with an unusually sensitive and timid animal which struggled frantically, and which was therefore allowed to rest out of the calorimeter for a period of 15 minutes, at the termination of which period it was found to have lost 1735 gramme-units of heat from its body temperature. Exhausted by its previous struggles the animal offered little or no resistance to the administration of the alkaloid, and was immediately transferred to the calorimeter.

Table 7.

(Observations ¼ hour each.)

Rabbit given 4 grains of Caffeine.

Weight of Animal 1830 Grms.	Total Heat-Formation.	Loss or Gain in Body-Temperature.	Fresh Heat-Formation per Gramme of Body-Weight.
Observation 1.	4101	— 1265	2·24
„ 2.	5447	+ 80	2·97
„ 3.	3225	+ 425	1·76
„ 4.	7633	+ 167	4·17

In each of these three last experiments the thermometric observations reveal an exceptionally exalted state of thermogenesis. The fresh heat formation amounts to quite double what was registered in Tables 3, 4. In Table 6, especially, is this maximum result seen, where, in the second observation, 10095 gramme-units are formed within the period of 15 minutes, corresponding to 5·37 heat-units for each gramme of body-weight. Each experiment illustrates, in a striking manner, the following features, as especially characteristic of the action of these larger doses:—

1. Great increase of fresh heat-formation.
2. Prolongation of the above stage of stimulated thermogenesis.
3. Maximum of heat-formation attained at a later period with the augmented dose of the alkaloid.
4. Early efforts at the restitution of the norma of temperature—seen in all cases alike.

Thus in Table 7, the stage of exalted thermogenesis extends *over one hour*, at the termination of which period the maximum is attained, the animal having in this case taken the *strongest dose of Caffeine* as yet given.

So also in Tables 5 and 6, the same stage is seen extending through the whole of the first hour subsequent to the administration of Caffeine; in Table 5 (the smaller dose), the greater heat-formation occurs in the earlier observations; in Table 6 (the stronger dose), this occurs later on, yet not so long deferred as in the next case (Table 7), where the largest amount of Caffeine was given.

TABLE 8.

(Observations ¼ hour each.)

Rabbit given 6 grains of Caffeine.

Weight of Animal 2207 Grms.	Total Heat-Formation.	Loss or Gain in Body-Temperature.	Fresh Heat-Formation per Gramme of Body-Weight.
Observation 1.	6391	— 1425	2·896
,, 2.	3701	— 1502	1·677
,, 3.	5023	— 203	2·274
,, 4.	4440	Nil.	2·011

Still larger doses (6 grs.) of the alkaloid were given, but always with the effect of causing such intense cerebral excitement, with irritability and violent struggling, that the results were peculiarly interesting. The characteristic heat-augmentation of the Caffeine was still more protracted and delayed in its appearance, whilst the earlier stages were chiefly characterised by great loss from body-temperature. This earlier stage, induced by very large doses of the alkaloid, are represented in Table 8, the later stages not being included.

Perhaps I cannot better illustrate the effects upon animal heat of the larger doses of Caffeine than by tabulating two typical experiments along with calorimetric observations upon rabbits (a) in the normal state (b) after the administration of alcohol; and (c) after Caffeine in strong doses combined with alcohol.

The animal in the normal state was experimented upon under most favourable circumstances; and I have on several previous occasions taken the results given in the first column as a fair average statement of thermogenesis in the healthy state. It will be noted how low the heat formation is in this case when compared with that registered after strong doses of Alcohol, and also after Caffeine; for whilst in the normal state 1·08 heat units is the maximum attained, and usually the registry is not above 0·96, in the case of the stronger dose of Caffeine the maximum is 4·62; and in the case of Alcohol 4·28, the stage of exalted thermogenesis extending over an hour with both. Again, when the cases treated with Caffeine are compared with those which have had Alcohol, a great distinction is observed as regards body temperature. In the former case the primary discharge is succeeded shortly by *retention and addition* to the body temperature; in the latter case a *continuous and prolonged discharge of the body heat* occurs, gradually diminishing, however, and restitution commencing at the sixth observation, so that, by the end of one hour and a quarter from the administration of the Alcohol, the animal's temperature had fallen 6·5 degrees Fahrenheit, *i.e.*, from 103·8° to 97·3°. The animal to which three drachms of diluted Alcohol had been administered was profoundly affected, apart from this inability of the system to reinstate the norma of temperature; beyond the dulness, heaviness, and somnolence from which it suffered, there was paralysis of its limbs and frequent severe rigors, with almost constant trembling.

We may, I think, rightly conclude from these comparative observations that whilst both Caffeine and Alcohol alike increase

Table 9.

(Observations extending over $\frac{1}{4}$ hour.)

Rabbit	In Normal State.		After 180 mins. Alcohol.		Caffeine (weaker dose).		Caffeine (stronger dose).		Caffeine 6 Grains + Alcohol 2 Drachms.	
	Body Temp.	Heat Units per Gr. Body Wt.	Body Temp.	Heat Units per Gr. Body Wt.	Body Temp.	Heat Units per Gr. Body Wt.	Body Temp.	Heat Units per Gr. Body Wt.	Body Temp.	Heat Units per Gr. Body Wt.
Observ. 1.	+ 98	0·96	— 2151	1·32	— 1255	2·53 *	— 744	* 1·53	— 715	* 0·51
„ 2.	+ 98	0·96	— 1974	2·35	— 499	1·20 *	— 122	3·73	+ 535	1·024
„ 3.	+ 98	0·96	— 936	2·43	+ 284	2·02	+ 186	4·62	— 899	Not appreciable.
„ 4.	+ 98	0·96	— 462	2·0	+ 354	2·7	+ 61	3·20	Nil.	0·88
„ 5.	+ 497	0·64	— 379	4·28	+ 424	2·083	+ 183	2·12	*	*
„ 6.	Nil.	1·08	— 352	1·92	Nil.	2·52				
						* Prior to administration of Caffeine.		* Prior to administration of Caffeine.		* Prior to administration of Caffeine & Alcohol.

to a great extent the normal heat formation, they differ in the very important feature that *alcohol by an excessive and prolonged discharge of heat greatly lowers the body-temperature*, whilst on the other hand *Caffeine tends rapidly to reinstate the norma of temperature by retention.*

As to the parts played by the respiratory and the general cutaneous vaso-motor systems in the loss of animal heat, I have but one remark to offer. Whenever by any mischance the slightest interference with respiration took place in a rabbit whose temperature was reduced by Alcohol, as for instance by the regurgitation of a little fluid into the trachea, the increased thermogenesis was immediately checked, and the body temperature fell so low as to render a fatal termination imminent.

When large doses of Caffeine and Alcohol combined are administered the interesting results seen in Table 9 are apparent. An early stage of diminished heat-formation precedes the increased thermogenesis, whilst the fall in body-temperature, which characterises the action of alcohol, appears more or less *completely antagonised by the Caffeine.*

In all cases treated by Caffeine the contracted pupil, increase of salivary secretion, and mucous discharge from the bowel were prominent symptoms. To these were superadded changes in the vaso-motor condition of the ears, and occasionally, as before remarked, violent struggling as the result of cerebral excitement. All these symptoms have been described previously as characteristic of a group of alkaloids, containing Caffeine, Theine, Cocaine, and Guaranine.*

In the valuable report to which I allude the effect of the injection of Theine and Caffeine into the rabbit indicate very clearly a primary lessened and subsequent increased temperature of the ears, variations rapidly induced by the mode of administration. In all my experiments the alkaloid was given by mouth, and the dose never pushed up to the lethal point. It appears to me, in conclusion, to be a point of great interest, and one suggestive of further observation, that whilst stimulating heat formation Caffeine should differ from Alcohol in retention of heat and addition to body-temperature, and should antagonise so effectually the vast heat-discharge which occurs in the vaso-motor paresis induced by Alcohol. It would be premature to attempt any very definite deductions from the above series of experiments, but I venture to assume they have therapeutic and dietetic indications, which may prove of value.

* See "Report on the Antagonism of Medicines," by J. Hughes Bennett, 1875. Being the Report of the Edin. Committee of the Brit. Med. Association.

Universal experience points to the unfavourable action of Alcohol where retention of body heat is essential; and we even have the verdict of Arctic explorers and others of similar experience and import as to the preference given to tea, coffee, and their allies over spirits as an article of diet, considered from the point of view of conservation of temperature; and although the physiological action of Alcohol may prove of especial value in some cases, we can well conceive those other conditions where its use either therapeutically or dietetically considered cannot fail to prove highly prejudicial.

Prognosis in Cases of Refusal of Food. By Henry Sutherland, M.D.

"May good digestion wait on appetite, and health on both." So speaks the greatest of our English poets—the immortal Shakespeare.

Who can estimate too highly the blessing of a good appetite? Who is there amongst us who does not feel that loss of appetite is one of the greatest curses that can be inflicted upon suffering humanity? Is not a good appetite the greatest proof that we are in good health? Is not loss of appetite, in however small a degree, an evidence that there is something wrong with us? and is not complete loss of appetite a sure indication of approaching dissolution and death?

The causes of loss of appetite are so various that it is almost impossible to arrange them under any definite heads. All ages are affected by it, from the puking child to the hoary-headed man of fourscore years. Both sexes are liable to it, although as will be shewn the female is more prone to it than is the male.

Civilization undoubtedly increases it, from the fact that more artistically prepared foods excite us first to eat too much and then make us loathe our food from our excesses. Moral and physical causes both play their part in its production. Mental causes are almost innumerable, from the mere loss of appetite due to reasonable grief, down to the insane suicidal attempt of a lunatic to destroy himself by refusal of food under the influence of delusion.

Somatic influences again are equally powerful and varied, sometimes depending upon a mere trifle, such as loss of

teeth, and again being associated with the most severe forms of disease with which we are acquainted.

External influences also play an important rôle, as when anorexia ensues from excessive indulgence in alcohol, tobacco, opium, ganga, bang, churrus, or any of the many sedatives which in moderation are a blessing to man, but in excess are a curse.

And if the causes are so numerous and varied, how much more varied must be the treatment! Are we to lay down rules and apply them according to the nomenclature of diseases recognised amongst practitioners? Or are we to deal with each individual case? Both modes must undoubtedly be accepted, but we must ever be mindful that we are treating patients and not diseases. Again, can anything be done in such cases beyond a mere exhibition of drugs? Certainly there are weapons at our hand more potent than the pharmacopœia itself, such as the removal of the cause of anorexia when the disease is in its early stage, the moral influences such as threats or persuasion suitable in different cases; and last, though by no means least, the employment of the various modes of artificial feeding, which have recently been brought to such a state of perfection.

But about such matters let us not talk loosely. We must, if possible, gather statistics of disease from well-kept records, where we can ascertain the causation, symptoms, treatment and result, of those cases which we have had for some length of time under our own observation.

With this object in view I have ascertained from my case books the number of patients requiring artificial alimentation in the last 100 males and in the last 100 females *discharged* from my asylums, *or who have died there.* My reason for not taking the percentage on the *admissions* being that I wish to demonstrate the ultimate result of such treatment in those cases who required feeding by mechanical means.

These patients were all insane, and upon their peculiarities I propose to found the remarks I shall make in this essay.

At the same time should these cases suggest any observations upon others in their right mind who have required any special mode of feeding in private practice, I shall allude to such patients, as it were in parenthesis, hoping that the treatment adopted in their cases may assist in illustrating the therapeutic value of food administered against the patient's inclination.

Of the last 100 *male* patients who have left the asylum or have died the forms of insanity were—

in	70	cases	Mania,
,,	14	,,	Melancholia,
,,	16	,,	General Paralysis.
	100		

Of the last 100 *female* patients who have left the asylum or have died the forms of insanity were—

in	66	cases	Mania,
,,	34	,,	Melancholia.
	100		

Of the same last 100 *males* above-mentioned—

22	were	discharged	recovered,
44	,,	,,	relieved,
18	,,	,,	not improved,
16	died.		
100			

Of the same last 100 *females* above-mentioned—

34	were	discharged	recovered,
41	,,	,,	relieved,
17	,,	,,	not improved,
8	died.		
100			

I am unable to discover that the age, condition as to marriage, or occupation of the patients fed artificially in any way influenced prognosis.

The form does not in females; but of course all cases of general paralysis complicated with refusal of food are fatal in the male. No case of general paralysis has ever been admitted to my female asylum.

The cause of the attack does not seem to influence the prognosis in feeding cases.

The bodily condition on admission does affect the result materially, very emaciated patients dying rapidly, and those who are suffering from any severe bodily disorder also succumbing very soon to their illness.

The mode of feeding does not materially affect the prognosis. But it is true that feeding by the mouth tube allows of more solid farinaceous matter being forced into the stomach.

It is also true that the patient is often kept alive for a long time by feeding by the nose alone; and in certain exceptionally favourable cases, life may be actually prolonged by an exclusive course of alimentation by the rectum.

Ten cases out of the 100 *males* refused food. The form of insanity was—

in 5 cases Mania,
„ 4 „ Melancholia,
„ 1 case General Paralysis.

Eight cases out of the 100 *females* refused food. The form of insanity was—

in 3 cases Mania,
„ 5 „ Melancholia.

Out of the above-mentioned 10 male cases 3 died, 2 were discharged not improved, and 5 recovered.

Out of the above-mentioned 8 female cases 1 died (æt. 71) and 7 were discharged recovered.

Prognosis is, therefore, more favourable in cases of refusal of food by the female than by the male.

I must confess to a feeling of disappointment as regards my statistics. I have fed so many patients in private practice that the remembrance of their cases led me to believe I had fed a much larger number in my asylums. In this I was deceived, for, as I have shown above, only 10 males and only 8 females required feeding in 200 cases, that is to say 10 per cent. males and 8 per cent. females.

As statistics have given me so little information, I must attempt to supply the deficiency from notes of private cases and from memory, and shall now endeavour to bring to your notice the circumstances under which prognosis may be considered favourable or the reverse in patients requiring artificial feeding, illustrating my remarks by describing cases which have been under my own care and observation during the last twelve years.

1. Prognosis is good when there is only a disinclination for and not a distinct refusal of food.

1*a*. Prognosis is bad when there is a persistent refusal of food.

2. Prognosis is good when disinclination and refusal of food depend upon some removable bodily cause.

2*a*. Prognosis is bad when the bodily cause is *ir*removable,

and most unfavourable in cases of general paralysis of the insane complicated with some severe bodily disorder.

3. Prognosis is good when the refusal of food occurs during a first attack of mental alienation.

3*a*. Prognosis is bad if the refusal occurs during a second or subsequent attack.

4. Prognosis is good if after once being fed artificially the patient takes his food naturally.

4*a*. Prognosis is bad if the patient requires to be fed more than once, the recovery to mental health being less likely to occur in cases which have been fed a great number of times.

5. Prognosis is good if the health and weight of the patient remain about the same.

5*a*. Prognosis is bad if the patient loses flesh, although fed daily, the tendency to death being very marked in such cases.

5*b*. It is also bad if the patient gains much flesh under the feeding, at least as regards the recovery to mental health, such patients drifting usually into a contented state of dementia.

6. Prognosis is good if the patient wishes to recover.

6*a*. Prognosis is bad if the patient has persistently suicidal tendencies.

7. Prognosis is good if the treatment both by drugs and by feeding is resorted to early.

7*a*. Prognosis is bad if the treatment by drugs and proper feeding is delayed.

These propositions will now be illustrated by appropriate cases.

1. Prognosis is good when there is only a disinclination for and not a distinct refusal of food.

In support of this argument I may quote the case of Sarah Baskerville, one of the most notorious patients at the present time in London, in consequence of her having lived for not less than three years upon no other food but Koumiss.

This girl came under my care about seven years ago with suspicious symptoms of phthisis, such symptoms being very feebly marked. These signs have cleared up, but during the last three or four years she has been troubled with the most obstinate vomiting. All the known remedies for vomiting were tried without effect—opium, hydrocyanic acid, bismuth, creasote, carbolic acid, and many others. The vomiting continued, and the patient became much emaciated, as she could keep down no food.

Having found Chapman's koumiss of great service in certain cases of vomiting in alcoholic insanity, I resolved to give it a trial, and I may say with perfect success, as the patient has now lived upon koumiss and no other food for more than three years. Latterly she has been under the care of Dr. Jagielski, who has tried various articles of diet mixed with the koumiss, such as mashed potatoes, peas-pudding, &c., but only with the result of making her sick if she resorted to any other food except koumiss. The patient, however, is able to take a little sherry wine, and also a mixture of quinine and orange. This case is, I believe, unique, and fully illustrates this point, there being only a disinclination for food consequent upon the tendency to vomiting; the patient has been kept alive, and has even gained flesh.

1*a*. Prognosis is bad when there is a persistent refusal of food.

A handsome young Jewess, aged 16, was brought to me suffering from hysterical mania. True to her religious opinions, she refused to take meat unless it had been killed according to the Jewish methods. This point was yielded to, and for a day or two she lived upon nothing but a farinaceous diet. Soon religious delusions appeared, with a complete refusal of food. Being unwilling to risk injuring her teeth, which were very beautiful and regular, I fed her by the nasal tube with milk, beef tea, wine, and castor oil, three times a day for some days. She had the power of appearing perfectly sane between her attacks of mania. During one of these lucid intervals her parents visited her, and believing that she had recovered, insisted on removing her, against my express will, from the asylum. She broke out again that night, refused food, and attempted to get over their garden wall. They implored me to readmit her, which I declined to do, as she had been removed contrary to my advice and orders. She was treated at home by a doctor who fed her artificially. She became worse and worse, always persistently refusing her food, and ultimately I saw her some years later in the Kent County Asylum, where she was in the wards considered to be a hopeless dement, her mind gone, her beauty faded, her teeth irregular, her figure fat and shapeless—a mere wreck of her former self. Patients who persistently refuse food either die or drift into dementia.

2. Prognosis is good when a disinclination and refusal of food depend upon some removable bodily cause.

Such bodily causes may be loss of appetite from constipation, from want of exercise, from the abuse of alcohol or of tobacco, from biliousness, and I have also known it occur in certain cases of syphilis.

A gentleman was admitted to my asylum on the 5th of February, 1872. He had been in bed for eight years previously, and under the delusion that he had neither hands nor feet. Unlimited beer and tobacco were supplied to him in the house, and at the same time his appetite declined from want of exercise and excessive drinking and smoking. At first he was unable to walk, but there being no real loss of power either in the hands or feet, he was persuaded gradually to use them, and he can now walk a fair distance every day. Had he been allowed to go on declining food and exercise, I have no doubt he would have died from pure loss of appetite. Fortunately he was rescued in time from a condition of utter filth and neglect, and under proper hygienic treatment he regained his bodily health. He, however, still remains in a state of incurable dementia.

Another insane gentleman under my care was cured of loss of appetite from biliousness by a course of nitric acid and mercury. He recovered both his mental and bodily health.

A woman with a soft chancre was under my care for a short time, suffering from syphilitic melancholia. She refused food. I fed her with the mouth tube, and under treatment with mercury and iodide of potassium she made a speedy recovery to mental and bodily health.

2*a*. Prognosis is bad when the bodily cause is irremovable, and most unfavourable in cases of general paralysis of the insane complicated with some severe bodily disorder.

A man under my care was afflicted with acute mania with refusal of food. I fed him for some weeks with both the mouth and nasal tube, and as the end approached also by the rectum. He had a large inguinal hernia, which I reduced. He was, however, strongly suicidal, and pushed the rupture down again. I again returned it, and also very reluctantly placed him in a strait waistcoat. The case was also complicated with phthisis. The man died soon after admission from exhaustion from acute mania.

Another similar case, complicated with a large umbilical hernia, also ended fatally.

A man under my care suddenly refused food. I fed him cautiously. He died unexpectedly in the night. On post-mortem examination the colon was found to be distended to the thickness of a man's thigh. It had also the horseshoe

(downwards) displacement so frequently met with in the autopsies of the insane. Loss of appetite was here due to the distension of the alimentary canal.

Another man under my care declined to take food, asserting that his œsophagus was stopped up. I carefully passed the mouth tube and came upon an obstruction. I then quietly pumped liquid food through the tube. This caused partial distension of the stricture, and the tube was then sent on to the stomach. Matters got worse. The œsophagus was blocked. Feeding by the rectum was resorted to. The man died. Malignant stricture of the œsophagus was found after death.

A prostitute with a hard chancre was admitted under my care. She had a large ugly node on the forehead. At first erotic, she soon became demented. I fed her with the mouth-tube without a gag. She made no resistance. She soon died of constitutional syphilis. Post-mortem, a hard node on the inside of the frontal bone was found, which corresponded with the node outside. Pressure of this node on the brain doubtless accelerated the onset of dementia.

A man with general paralysis complicated with boils as large as two fists on every part of his body where pressure was exerted, was for some time under my care. I fed him with the mouth-tube three times a day. I opened the boils with an amputation-knife, and gave him quantities of iron, quinine, brandy, and nourishing food. As might have been expected he soon died.

Another case of general paralysis complicated with phthisis, was admitted to my asylum. I fed him with the mouth-tube and by the rectum. He died from exhaustion from maniacal excitement.

3. Prognosis is good when the refusal of food occurs during a first attack of mental alienation.

A young lady, aged 20, was under my care with acute hysterical mania. She had taken very little food for days before the attack, and was yet able to take a great deal of exercise by walking and rinking. Being much exhausted and refusing to take food, after all means had been tried, I fed her once through the nose. The effect was magical. She made a speedy recovery, and has not since then had a second attack. She is one of the chief ornaments of the ball-rooms of London.

3*a*. Prognosis is bad if the refusal of food occurs during a second or subsequent attack.

A gentleman was admitted to my asylum. He refused

food. Recovered from acute mania, and was discharged *recovered.* Unfortunately he fell from his horse, injuring his head. He was again admitted as insane, the attack being doubtless due both to the predisposition from a first attack, and to the injury to the head. He again refused food, and was on the second occasion discharged *not* improved.

4. Prognosis is good if after once being fed artificially, the patient takes his food naturally.

A colonel in the army was admitted to my asylum. He had attempted suicide by precipitating himself from a window. His father had saved him by catching hold of his legs, and then keeping him down on the floor until assistance arrived. He was a very clever lunatic in action and in speech. Soon he refused food altogether, intending to destroy himself. He was fed once with the mouth-tube, and speedily recovered. His bulk and weight remained the same during his whole residence in the asylum, extending over some months.

4*a*. Prognosis is bad if the patient requires to be fed often.

A patient was admitted to my male asylum on the 29th of March, 1881, and discharged not improved on the 2nd of November, 1881. During this period of six months he was fed 148 times both with the mouth and with the nasal tube. He has since his discharge been at Bethlem Hospital in a state of incurable dementia.

5. Prognosis is good if the bulk and weight of the patient remains about the same.

A gentleman was sent to my asylum from New York. He was under my care for two months, neither gaining nor losing flesh, although occasionally requiring artificial feeding. At the end of that time he was discharged relieved, and went with the doctor who had accompanied him from America to an English watering-place. Soon afterwards he returned to New York cured.

5*a*. Prognosis is bad if the patient loses flesh.

An officer in the army, aged 40, was admitted suffering from general paralysis and phthisis. He refused food, and was fed three times daily by Paley's feeder, by the mouth-tube, and at last by the rectum. He lost flesh daily, and died two months after admission.

5*b*. Prognosis is bad if the patient gains flesh under the process of feeding.

A tradesman, aged 30, was admitted last year. He obstinately refused food, but would at times take it naturally if allowed to steal it from another patient. Maniacal and fairly

intelligent at first, he soon drifted into a state of chronic dementia. He left the asylum much stouter than he was on admission. He was with me for seven months, and was then transferred to a public asylum, where I am told (three months later) he continued in the same demented condition.

6. Prognosis is good if the patient wishes to recover.

A young lady, aged 25, was under my care suffering from enteritis. She was perfectly sane and anxious to recover. Under my direction she was fed for six weeks by nutrient enemata, no food whatever being taken by the mouth during the whole of that period. She made a complete recovery, but died four years later of phthisis.

6*a*. Prognosis is bad if the patient is persistently suicidal.

A gentleman under care in my asylum refused food with suicidal intention. I fed him frequently by the mouth and the nose. He also attempted to destroy his life by refusing to pass his fæces or water.

Injections and aperients were given, and catheters were passed with the greatest difficulty, as the patient resisted in every possible way. He also made three distinct efforts at self-destruction; one by throwing a long sheet over the top of the wall of the padded room, drawing the sheet from without inwards through the peep-hole in the door, tying a noose in the end of the sheet into which he inserted his head, and then pulling the other end of the sheet which still remained hanging over the top of the wall of the padded room, so that his head was pulled by his own efforts up against the peep-hole of the door. He was discovered before he had completed his arrangements, and his life was saved.

His second attempt was by biting through the radial artery over the wrist.

And the third was by an endeavour to strangle himself with his braces. He was discharged as incurable six months after admission.

7. Prognosis is good if the patient is treated by drugs and feeding early in the attack.

A lady, aged 24, was admitted with acute puerperal mania, the day after the attack commenced. She was homicidal, having attempted to take the life of her child, but not suicidal beyond the fact that she altogether refused to take food. The child was removed from her, belladonna plasters were applied to the breasts, which had the effect of speedily drying up the milk; vaginal injections of Condy's fluid and warm water were applied, as the lochia were offensive, and a mixture of tr. ferri perchlor. 20 drops, and pot. bromidi, a

drachm, was given with proper aperients in the fluid food. She had beautiful teeth, and I therefore fed her three times a day with the nasal tube. She recovered in three weeks, and left the asylum four weeks after admission perfectly well.

7*a*. Prognosis is bad if the treatment by drugs and by feeding is delayed.

A gentleman aged 43, was admitted, suffering from advanced general paralysis. He was in a state of great filth, and his own relations confessed it would have been better if he had been treated properly three months sooner. His life could not have been saved, but it might at least have been prolonged for some years. His circulation was feeble, and his vitality at a low ebb. There was only partial refusal of food, which was overcome by ordinary spoon feeding. Gangrene of the legs set in, and he died ten days after admission from blood poisoning.

This illustration will conclude the series of propositions I have attempted to lay down concerning prognosis in cases of refusal of food.

From what has been advanced it will be readily seen that *the therapeutic value of food administered against the patient's inclination depends far more upon the condition of the patient himself than upon the mode of administration or the kind of food administered.*

The Prognosis in Insanity. By D. G. Thomson, M.D.

II.

(Continued from Vol. xxviii., p. 210.)

Mental Exaltation, Mania.—The question of the Prognosis in Mental Exaltation—Mania—in its various forms, is a far more debatable and uncertain matter than in melancholia. The symptoms in melancholia being of a negative character due to a lowering or suspension of brain activity, we do not look for all those diversities, endless varieties and aspects which we may find in mania, be it simple, acute, or chronic. Generally there is an increased vitality, a state of hyperæsthesia, an increase in the activity of the brain, generally of the whole brain, and we must believe that these states will not so easily end in complete resolution as the condition of merely depressed action, or rather no action, which obtains in melancholia—I mean in melancholia generally, and not those states of acute melancholia which are supposed to be closely allied to the state which in other brains and under other subjective circumstances

would give rise to mania from a pathological point of view. If this increased activity does not rapidly terminate in resolution, one of two things must occur—either exhaustion or atrophy, resulting in death or dementia, will supervene, or abnormal tissue will invade or replace healthy nerve paths or areas, and chronic aberration of mind ensue.

Thus, then, we are at once brought to the influence of duration on the prognosis, for, with rare exceptions, recoveries after long periods of mania do not occur, as is not unfrequently the case in melancholia. As prognosis in mania depends greatly also on the amount or degree of exaltation, it is advisable to consider the marked varieties of mania separately.

Firstly, as regards simple mania, it may be stated as an axiom that with the exception of acute maniacal delirium, the *Délire aigu* of the French, a good prognosis may be given in proportion to the degree of acuteness of the attack. Bucknill and Tuke state that boisterous, noisy mania, particularly occurring in the adolescent, is generally perfectly recovered from, but in mania without delirium or excitement, with, as a general rule, delusions in which the symptoms point rather to perversion of the mental powers than to mere excess of normal activity (although the latter may be also perverted more or less) the prognosis is very grave. More particularly is this the case when the person who, to the casual observer, may not appear insane at all, who may be able to attend in a measure to his affairs, and conduct himself pretty much like his sane fellow-creatures in the social economy, yet on examination is found to be the subject of fixed and permanent delusions which may be few in number, showing that the new nerve paths, on which these abnormal thoughts and conclusions travel, have become well trodden. Then we have evidence that an ineradicable habit has been formed and an unfavourable prognosis may be given accordingly. Such a patient may appear in fair bodily health, sleep and eat well, and show no cause for the alienation. Recovery in such cases is rare; the tendency being for them to remain chronic, not exactly *in statu quo*, for gradually the aberration increases in extent, involving by degrees other mental faculties.

They may, however, live long lives, and show no tendency to lapse into dementia, as often happens after acute mania. Instances are on record in which such cases have been restored by severe mental shock, such as fright, operations, acute intercurrent diseases, and other violent stimulation of the mind, showing that the intellect is rather "unhinged" than physi-

cally diseased. Yet I cannot say, although I have seen all of these events occur in this form of mania, that I have seen benefit arise therefrom.

Secondly, acute maniacal delirium. This differs chiefly from acute mania by the presence of a higher degree of fever, shown by high pulse, temperature, great tissue-waste and consequent exhaustion.

The fatal exhaustion is ushered in by a sudden cessation of the excitement, and a gradually increasing stupor. This stupor in the last six deaths from exhaustion after acute mania which have been under my notice, has been well marked; to the inexperienced it might be looked upon as a good sign, for instead of the ravings and gesticulations, the patient exhibits a placid calm, as if sound asleep; the pulse, however, is feeble and rapid, and the respiration shallow and frequent, but the patient can still be roused, and the conjunctivæ are sensitive; gradually, however, the stupor deepens into coma, the face is bathed in cold sweats, the pulse becomes imperceptible, and the breathing stertorous, and in from 24-48 hours from the subsidence of the maniacal symptoms, death takes place. In such cases the tongue all along is in the condition known as typhoid, the breath is foul, and there is general decomposition and putridity in the sordes collected on the teeth and gums; in three cases of which I have notes, death seemed to be accelerated by rapid inflammation of the parotid gland, with the formation of septic abscesses in the gland structure. Whether the generally foul state of the secretions in the mouth actually spreads up the gland duct, and so gives rise to inflammation of a septic character or not I cannot say, but I think it highly probable.

Dr. Conolly records seven cases in the "Lancet" many years ago, all of which proved fatal. On the other hand, Mr. Carswell, late Assistant Medical Officer at the Barony Parochial Asylum, Lenzie, relates in the "Glasgow Medical Journal" for Nov. 18th, 1879 (page 355), several cases of acute delirious mania which did well under perfect rest, quiet, and a darkened room, and he insists strongly on the importance of a correct diagnosis between acute mania and acute maniacal delirium, the pathology of the two diseases necessitating a different form of treatment. The prognosis in this disease ought to be better now than formerly, seeing the increased number and efficacy of remedies such as quinine, chloral, &c., which we now possess.

Thirdly, ordinary acute mania, "raving madness." The prognosis in the early stages of the disease is quite uncertain,

and it is impossible to give rules applicable to individual cases, so much depends on the progress, history and course of the case.

Now, any case of acute mania, while it may yield rapidly to treatment, may end in death by exhaustion, may, after temporary recovery, recur as intermittent or recurrent insanity, or alternate with other mental states, or become chronic, or lastly may terminate in melancholia, stupor, or dementia.

Bucknill and Tuke state (*op. cit.*) that in ordinary acute mania the prognosis is most favourable, and that the disease is usually recovered from. The mortality of those admitted to the York Retreat in a state of mania was, in observations made for 44 years, about 4 per cent., certainly a very low mortality indeed for so serious a disorder. Griesinger, Maudsley, Pliny Earle, Dr. Clouston, and others, all tender evidence and opinion to the same effect.

Dr. Blandford (*op. cit.*) states the prognosis to be favourable. "Although, of course, our opinions will be modified by the duration, for if the disorder continues unimproved for some months our hopes will be less, but yet such patients often continue their noisy, violent conduct, and yet at last recover. Cases of recovery after three and even five years have come under my notice; then the character of the mania—if great noise and turbulent excitement are the predominant features with no very marked delusions, or with ever-changing delusions, we may have hope, but if the delusions do not vary, and, above all, if the patient hears voices, the cure is very doubtful.

"The age of the patients; the younger they are the greater is the chance of recovery, and it is noteworthy that men recover oftener than women.

"Then, if at the commencement of the attack, the patient be greatly debilitated, or if there be other disease, the violence and want of sleep will still further reduce the strength and interfere with the chance of recovery, and if in such cases there be much difficulty in getting the patient to take food the prospects are still more gloomy."

I cannot do better than use this summary of Dr. Blandford's as a text for a few additional observations.

The majority of the chronic insane in our asylums (how best to deal with whom constitutes one of the most difficult problems of the day) are cases of incomplete recovery from simple or from acute mania. Thus the prognosis in acute mania is of the first importance. As before stated, it is impossible in the early stages to say much more than that

a high percentage of such cases recover, provided the subject be young and healthy, the more so as it is a disease very amenable to treatment, that such cases *should* recover, seeing that, even in the worst cases where death occurs, little or no obvious pathological change is found at the autopsy, and that it generally attacks the young and vigorous, although it may occur at all ages. So that when a case of acute mania is presented to us, we can most certainly give a favourable prognosis. The greater difficulty is when resolution having begun and the acute symptoms are passing off, a sub-acute stage is ushered in. Mere noisiness, dirtiness of habits, and destructiveness are not sufficient to guide us, for these often continue for long and yet the patients ultimately get well.

There are several points which will assist us in knowing if our case is going to recover or is going over to the list of incurables. First, one of which I see little mention in the books, viz., a peculiar and characteristic change in the patient's appearance, the most salient point in which is a loss of hair, a general thinning of it all over the head, chiefly so in the frontal and parietal regions, quite different from ordinary baldness of the vertex. The hair is sparse and coarse in persons who, according to their relatives' account, previously possessed fine heads of hair, even making due allowance for the difference produced by careless dressing. I have been struck by this in many photographs which I have taken of chronic cases which show a considerably increased prominence of the parietal and frontal regions chiefly on this account. This point is particularly noticeable in women, but also exists in men. After a time, when chronic mania is thoroughly established, the hair may grow luxuriantly again, or may remain dry and straight. Probably this condition of the hair is due to disordered nutrition, which is evidenced in another way by hæmatoma auris or the "insane ear." With the causes and varieties of the insane ear I have at present nothing to do ; suffice it to say that Brown Séquard maintains it is due to an irritation of the base of the brain, and can be artificially produced in guinea pigs by irritation of the restiform body. These hæmatomata are usually regarded when occurring after the subsidence of acute mania, or in other forms of insanity, as a certain sign of incurability. That it is a very bad sign, showing evidence of grave cerebral disorder, there can be no doubt, but that it is a sign of absolute incurability is certainly not correct, even when not due to a blow.

Three cases of mania under treatment at Camberwell House Asylum have recovered. Two were gentlemen and one a lady; one of the former relapsed and died here, but the other two are well and occupying good social positions since their recovery some five years ago. Of these cases I have been informed by Dr. Schofield, the medical superintendent, and have seen one of the gentlemen, a clergyman, myself lately; both his ears were quite shrivelled up, but their owner was perfectly sane.

In unfavourable cases we also note an alteration in the facial expression—gradual obliteration of the lines in the face, giving rise to a flat expressionless countenance.

Another bad symptom in the subsidence of acute mania is that whereas the delusions formerly were ever changing and evanescent, seeming to bubble up and effervesce, so to speak, from the heated brain, they now begin to assume a more fixed, definite, and purposive character. Such a symptom, if it also be accompanied by hallucinations, auditory or visual, especially the former, is indicative of serious mental changes. Dr. Blandford, in an able paper on auditory hallucinations, in the "Journal of Mental Science," January, 1874, states, "We are called, it may be, to pronounce an opinion on a recent case. The symptoms may be somewhat acute, and have begun suddenly; generally the health is fair, and youth may be on the side of the patient, there may be everything to lead us to give a favourable prognosis, yet time goes on, and although there may be apparent amendment, there is no recovery, and one time or other, perhaps not till after a considerable period, we discover our patient hears voices, and our prognosis changes from 'favourable' to 'most grave.'"

The retention of the memory is not *per se* of much value in the prognosis. I have seen the most hopelessly chronic maniacs exhibit wonderful powers in this direction, although it can be readily imagined that the converse is equally true—that if the memory become worse and worse, it is a sure sign of dementia.

Do physical signs in any way help us? On the whole our answer must be in the negative, unless it be body weight, for here as in melancholia increase in body weight if attended even with but slight improvement, is a good augury; yet stoutness without mental amelioration forecasts dementia.

There is nothing characteristic for prognosis in the pulse as to frequency or the sphygmographic tracings it yields, nor yet in the ophthalmoscopic appearances of the retina to guide us as to whether a case will recover or not. Dr. Clifford Allbutt and Dr. Hughlings Jackson, who have investigated these points,

beyond showing their importance on the pathology of the disease, chiefly in coarse organic forms, do not contend for any special value in them in the question of prognosis.

When dementia supervenes upon mania, then practically all is lost; for, to quote Dr. Hayes Newington, true dementia is "the tomb of the mind," the bourne from which no errant intellect returns. Yet here we must be very sure of our diagnosis, for (especially in females) there is a condition of anergic stupor which, to the casual observer, is exactly similar to the ordinary secondary dementia, but there is an important difference in the result of the two conditions, viz., that anergic stupor, which is common in women after acute mania, is generally recovered from, while in dementia proper it is not. This anergic stupor is very different from the fatal stupor of exhaustion above referred to, and is chiefly to be distinguished from it by its very gradual onset after all acute symptoms have passed off. (See the "Journal of Mental Science," Oct. 18th, 1874).

From the above considerations it will be seen that the prognosis in mania is a very uncertain matter, and only by a careful watching and grouping of all the mental and bodily symptoms, can we hope to approach any degree of certainty in our forecasts, never forgetting that while on the one hand, the strong and young generally recover, on the other, in the middle-aged and weakly, whose cases may show the most unfavourable signs, cases of recovery, even after long periods, are not unknown.

Alternations of Depression and Exaltation.—It is not necessary to speak of the other forms of insanity due to functional derangements at the same length as I have done of the two great typical departures from mental health, Depression and Exaltation, but I will at once briefly consider the prognosis in alternating states of mania and melancholia—the *Folie circulaire* of French authors.

On consulting the text-books on this subject, I find but little mention of the patients' prospects in this disease, and must therefore base my few remarks on cases which I have seen. The prognosis is invariably bad. Not that the patients will die or become absolutely demented, but that the transitory states of mania, of comparative sanity, and of melancholia succeed each other with relentless certainty. All attempts to prolong the period of comparative rationality seem useless. Antiperiodics and other like treatment, from which one might anticipate good, are of no avail, so that when the case becomes a well-marked one of *Folie à double forme* or circular insanity, our prognosis must be in accordance with the unpromising

nature of the disease. One typical case I have notes of—a lady aged 50, married, healthy and strong in body, has for 10 years regularly alternated between sanity, mania, and melancholia, each state lasting with wonderful regularity about three months, and always in the same order. It does not matter whether she be under treatment or not, whether she be at her home, which is a happy, comfortable country one, or in different kinds of wards (noisy or quiet) in the asylum. Many such cases have come and are under notice here, and we can prognosticate in all of them that the period of mania, with its sleeplessness, noisiness, dirty and destructive habits, will pass away, and the period of melancholic stupor also, but as surely will the transitory, though it may be perfect, state of mental health give way to one or other of these states and the disheartening cycle continue.

Different is it, however, with the purely recurrent insanity, whether it occur as recurrent primary dementia, recurrent melancholia, or recurrent mania, for all of the conditions obtain in the most pronounced and definite manner, although recurrent mania is the most common form of recurrent insanity.

The prognosis here is not so uniformly bad, and it is self-evident that when we talk of recurrent insanity it means that the patients get well of individual attacks, but that the recovery is not permanent; in fact, that it is a *Folie circulaire*, as it were, with only two states to alternate between, instead of three, as in true circular insanity.

First let me say a word as to the individual attacks themselves. These may be of the most prolonged and severe character, with symptoms which, if observed in an ordinary attack of mania occurring in a previously sane person for the first time, would augur badly as to the prospects of recovery; yet when these attacks are of a recurrent character, no matter how severe, or how weak or elderly the subject, recovery is almost certain.

In our present state of knowledge the prognosis is very unfavourable, the period of mental soundness intervening between the attacks becoming, as a rule, gradually shorter and shorter until a chronic condition of insanity is established. I have, however, notes of two or three cases which, at all events, have not recurred for over two years, and which at one time used to recur several times a year. If it be true that these recurring attacks are—in some cases at least—due to the accumulation of some deleterious matter in the blood or nerve

cells, may we not hope in time to combat this, and so render the prognosis more favourable ?

This form of insanity is most common in women, but appears in the cases which have come under my notice to have no special connection with the menstrual periods, &c., one or two having continued after the menopause. In one case the utter absence of any defined cause and apparently entirely idiopathic nature of the disease is well brought out in the case of a handsome, accomplished young married lady brought by her friends to Camberwell House every three months or so on account of recurring attacks of profound melancholic stupor. Inquiries were made if there had been intemperance, and the answer was a decided negative, while to the inquiry if there had been over sexual excitement the answer was that for the last six months she had not cohabited with her husband. Examination of her thoracic and abdominal viscera, urine, &c., reveals no disease. Menstruation natural, and showing no relationship to the disease. Yet all day she sits motionless on a chair in the ward, and having all the appearance of being stupified with some narcotic poison, utterly indifferent to her surroundings, abjectly filthy in her habits ; not wilfully so, but being apparently unconscious that her evacuations pass. It is needless to add that she takes no notice of anything said or done to her, and, of course, she is unemployed. She has to be fed by the nurse like a child, and even then with difficulty. Then in a fortnight or so after admission, without any special treatment, convalescence begins, ushered in by a gradual loss of the blank expression, her countenance traversed at intervals by placid smiles, as if in a pleasant dream. She begins to take an interest in things around her, soon brightens up, and from an inanimate, heavy, dull, lifeless-looking object wakes up, so to speak, and developes into a sprightly, active, fascinating woman, joining actively in the asylum amusements and dances, a skilled musician and lively conversationalist. Now this person, who used to be subject to these attacks every six weeks or so, has not had one for six months, and this although at home and managing her household. May we not in such a case incline to an ultimately favourable prognosis, and more especially when we come to know the nature of and remedies for the cause of the attacks of transitory mental stupor from which she suffers ?

Delusional Insanity and Insanity with Hallucinations of Sight and Hearing.—As Bucknill and Tuke state (page 136 *op. cit.*), " delusional insanity is not a hopeful form. Mono-

mania in the sense of a deeply-rooted delusion or false conviction in respect to one class of subjects generally resists treatment obstinately. Still more unfavourable are the delusions of grandeur and riches. Hallucinations and illusions of one or more senses are unfavourable except when due to any acute or febrile state of the system." Little more than this can be said in elucidating to any practical extent the prognosis in such cases. The alienation is greater than is implied in the particular delusion or hallucination, and their apparent sanity on subjects unconnected with the delusion is not, as one would at first expect, favourable to their chance of recovery, for such patients seem less and less able as time goes on to realize the difference between what they call "the spiritual voices" and the real, material, spoken words.

An accomplished, highly-educated lady in this asylum converses freely and rationally on the subject of her hallucinations, and will relate that she knows a difference between real uttered words and the voices which she hears, but that she is apt to act on the promptings of this spiritual voice, which appears so real at times, and so frequent, that in spite of all her efforts she cannot drive it from her mind. Sometimes, according as she is above or below par in her general health, she gives way to the promptings of these voices, and thus constitutes a dangerous but much-to-be-pitied patient, for, although at times quite alive to the falsity of the voices, she is now in such a nervous hyperæsthetic state from irritation at her condition, sleeplessness, &c., that she is morbidly suspicious and ready to give way when a voice seems to proceed from a slanderer or anyone talking ill of her. For years she had been subject to these hallucinations, and she tells me, that in spite of her reason and its efforts, they increase rather than diminish.

If in such a case, where the intellect, comparatively sound, and, above all, capable of the admission and cognizance of the falsity of the hallucinations, recovery does not take place, how much more unfavourable will be the prognosis in cases of hallucinations and illusions of the senses, accompanied by signs of more general mental disorder. In the paper read before the Medico-Psychological Association some years ago, Dr. Blandford drew attention to a class of patients who have hallucinations of hearing, but who do not hear voices, but only sounds, and "this," he says, "is a less formidable and altogether milder disorder—one which we may hope with confidence will subside. Such cases are not very

uncommon. The sufferer complains that he hears voices made in the next room for the purpose of annoying him, but this is a different state from that of the man who hears a voice commanding him to commit homicide or suicide and obeys it. I have known these voices subside for years and disappear, occasionally returning if the mental health of the patient for some reason or another declines."

Dr. Lockhart Robertson, writing 20 years ago in the "Journal of Mental Science," says:—"Their influence"—that is, hallucinations of hearing—"is most unfavourable. They are so apt to lie dormant for a time, and then reappear, that I should at any time be sceptical of the recovery of a well-marked case."

As an addendum to the above, I should note that the hallucinations of hearing and sight met with in the delirium of alcoholic insanity generally pass off; indeed, this is also true of all the acute forms of insanity in which temporary and varying hallucinations and illusions of the senses exist as a common enough symptom.

As will be alluded to hereafter, in the insanity from alcoholism it often happens that delusions and hallucinations remain after all the acute febrile symptoms have passed off. These, however, as a rule, gradually subside, although they may be long in taking their departure—in one case I remember lasting for a year.

In cases of weak-mindedness and what might be included under moral insanity, due to chloral- and morphia-excess and habit, illusions of the sense of sight are a common symptom; and although obstinate, they are generally got rid of when the habit is stopped, and the mind gradually gains power and strength from appropriate treatment, and is no longer drugged, irritated, and perverted by narcotics.

Dementia, Primary and Secondary.—Primary dementia is by many alienists considered to be generally recovered from. Bucknill and Tuke state broadly that dementia is, generally speaking, a hopeless condition, but they do not include under this head those cases which often pass as examples of acute dementia, but which are really nothing of the kind. I have seen many cases of so-called acute dementia recover, and the reasons for this are obvious. First, it is generally due to a moral, and not a physical, causation, such as fright or sudden calamity, these inducing, as in cases recorded by Dr. Handfield Jones in his "Functional Disorders of the Nervous System," a condition of temporary cerebral paresis; secondly, it gene-

rally attacks the young and vigorous, whose recuperative and latent powers are great; and thirdly, there is no apparent organic lesion.

Dr. Blandford says in his book on insanity—"How are we to distinguish this primary from secondary or chronic dementia? In other words, how can we say whether the patient will recover or not? I confess this is not easy, for the general appearance of the patient in the two diseases is identical. You are shown a young man or woman in a state of fatuous imbecility, of stolid expression or smiling idiotically, lost and dirty—nothing can be less promising. But if you are told that this condition came on almost suddenly, and if you observe the symptoms indicate great prostration of the circulation, you may pronounce favourably as to the result; but if the patient has slowly, gradually, but steadily drifted into this state without any assignable cause, then you may state that although improvement may take place, recovery is impossible." In these cases, then, according to Dr. Blandford, the prognosis accords with the diagnosis, for if we diagnose primary dementia we prognose recovery, and, on the other hand, if secondary or organic dementia, the reverse.

There are, however, exceptions which have come under my notice, notably where cases of prolonged secondary dementia after acute mania have recovered, of which the following is a well-marked example, although some might call it a case of anergic stupor occurring after an acute attack:—

A young lady, H. R. S., aged 25, received some shock or fright. She fainted, being in a swoon for 15 minutes. On awaking she became hysterical, impatient, and excited, soon becoming wild and violent, having delusions of fear, and being sleepless at night. This happened about the beginning of the year 1879. She was at first treated at home, but her violence and noise rendered this impossible, and she was removed to Bethnal Green Asylum. She was transferred, "not improved," to Bethlem Hospital in July 1879. Here she was said to be the most destructive, impulsively violent, and excited patient in the asylum, conducting herself more like a wild beast than a human being. She remained a year at Bethlem, and as she did not improve, had, in conformity with the rules of that establishment, to be removed, Dr. Savage, however, hoping, I am told, that she would ultimately recover. In this same mental state she was admitted to Camberwell House Asylum in July, 1880. She became in three months' time less violent, noisy, or destructive, but none the less idle, and dirty.

She had all the appearance of being hopelessly demented, sat silent as if deep in stupor, never spoke, never ate unless food were actually put in her mouth, and was filthy in her habits, passing all evacuations under her where she sat, or defiling her room at night by spreading her excrement about her clothing and room floor. This, then, was the state of the apparent secondary dementia, due to exhaustion and degradation, but not atrophy, of the higher intellectual centres after the prolonged excitement or maniacal state. This state of dementia, from which we never expected a return to health, lasted, however, only for eight months, when a gradual improvement began. This was very gradual, but certain. She became less dirty and neglectful, began to take notice of those about her, took up a little sewing and reading, and in two months was quite well, presenting to the *ordinary* observer no trace of the degraded and varying condition of mind she had been in for three years. She was discharged "*recovered*" towards the end of 1881.

This case will show, then, that we must be chary in prognosing ill in even the most apparently hopeless cases, for in the young, where the recuperative powers are great, there may be a return to health.

The cases which do recover may do so either exceedingly slowly or comparatively suddenly.

The duration of primary dementia varies, and depends greatly on external circumstances, and facilities for treatment, among which temperature may be particularized, for these cases suffer much from and their recovery is greatly retarded by cold, which acts prejudicially on the feeble circulation.

The ophthalmoscopic appearance in this disease is pallor of the discs, which improves during convalescence, so that this with other evidences of improved vascular tone and circulation generally, would aid us in our forecast during the progress of the case. Recurrence of primary dementia is rare, although the apparent dementia or stupor arising from alcoholism recurs with the drinking habit.

Of *Impulsive Insanity* I can scarcely speak at all, having seen only one really well-marked case—I mean of pure impulsive insanity as I understand it, for, of course, the acts and ways of the insane are commonly impulsive, more or less, but do not constitute "uncontrollable impulse." This never occurs in my experience *per se*, but in the cases of semi-demented patients, who are, as a rule, quiet, well-conducted patients. The case is that of a woman, aged 25, who is a most

uncertain and dangerous creature. She is generally quiet and harmless, smiling and talking to herself, and apparently good-natured and happy. This girl has a daily outburst of the most sudden and violent kind ; it occurs without any warning or premonition. It comes on by day or night. If at night she suddenly screams and yells very loud, tears the strongest rugs and ticking-blankets to ribbons, beats her face and head with her fists, gets into a perfect state of frenzy, and as suddenly becomes calm and tranquil, her face being very pale, suggesting the epileptic nature of the outburst (she is, however, free from all ordinary epileptiform seizures). If the attack comes on by day, she flies at her nearest neighbour, no matter how big or strong she may be, with lightning velocity, or she may take up a chair or anything at hand and propel it at windows, or even people. She has, of course, constantly to be watched ; medicines have little or no effect on her, and she has no prospect of recovery.

The impulsive insanity associated with epilepsy will be found under that heading. I am of opinion that in this country true impulsive, homicidal, or suicidal insanity is a rare alienation.

Insanity Depending on States Normal or Pathological of the Generative System.

(*a.*) *The Insanity of Pubescence.*—The insanity observed and described by writers as occurring at puberty, must be considered comparatively infrequent.

Dr. Skae points out, in the Morisonian lectures for 1873, that the prognosis is good, and that it is generally recovered from, the disturbed mental balance being restored after the changes in the system at puberty are perfected, provided the habit of masturbation be not contracted, in which case, as may be readily imagined, symptoms of imbecility and dementia come on, and the usual return to health does not take place.

Dr. Skae is also of opinion that the influence of heredity on the prognosis is also greater in this alienation, for if it be very strong, it militates seriously against recovery.

In cases where epilepsy has come on at an early age, say under ten years, it is often found that the child may be able to increase in mental development in spite of fits, be able to go to school, learn to read and write like other children ; but when puberty supervenes the epilepsy seems to choose, so to speak, this time to commence its destroying influence on the mind,

producing, more or less, imbecility, culminating as years go on in incurable dementia.

(*b.*) *Gestational Insanity.*—The insanity of pregnancy is also a comparatively rare affection, although less so than the preceding form, especially if we take into account the many cases which never reach an asylum. It may be characterised by maniacal excitement or melancholic depression, or simple clouding or obfuscation of mind, and is in the second case probably only an exaggeration of the distressed and fearsome state which exists in many women, especially the unmarried and in middle-aged primiparæ at the thought and prospect of parturition.

I have seen four cases of well-marked mania with pregnancy, but, in spite of its description in books, I would have been at a loss to recognise it as the mania of pregnancy unless I had looked lower than the head for symptoms. In two out of the four cases, of which I have notes, recovery took place after child-birth, but in two others it did not. Of the two whom delivery did not materially affect one was excited and the other depressed; the birth of the child seemed to have no effect, either in tranquillizing the one or rendering cheerful the other.

Dr. Playfair, in his book on midwifery, quotes Dr. Batty Tuke to the effect that the prognosis on the whole is very favourable. Out of Dr. Tuke's 28 cases 21 recovered, five became demented, one died, and one remains under treatment. According to Marcé there is little hope of recovery until delivery is effected, for only two out of his 19 cases recovered soundness of mind before the birth of the child. The prognosis we must believe to be still more favourable when we reflect that only the very worst and most urgent cases are certified lunatics, for Dr. Playfair states that the great majority of these cases progress to recovery without having to be sent to asylums, and thus do not find their way into lunacy statistics.

I should add that the tendency to dipsomania and depraved appetites, occasionally met with in the insanity co-existing with pregnancy, usually disappears post partum, as it is simply a part of the general moral perversion and not a distinct mania as in true dipsomania.

(*c.*) *Puerperal Insanity.*—The period at which puerperal insanity ends, and the so-called lactational insanity begins, is an arbitrary one, but may be in accordance with the views of Bucknill and Tuke set down as two months from delivery. By

this time involution should have taken place and the system recovered from the mental and bodily shock of child-birth, and on the other hand the anæmia and weakness arising from lactation is beginning to tell on those of weakly habit. The symptoms arising from puerperal insanity generally partake of an acutely maniacal character, although melancholia and stupor are not infrequent. We are anxiously asked at this more than usually distressing juncture, what the chances of recovery are, and the probable duration, so the prognosis here is an important matter.

Firstly, then, puerperal mania. If we look merely at the cases admitted into public and private asylums, and the percentages of their recoveries, it cannot be considered the very hopeful one it is generally stated to be, but it must be remembered that in this form of insanity especially it is only the very worst cases that are brought to an asylum, especially among the private class. Of the last 100 admissions of female patients to Camberwell House Asylum, there has not been one case of puerperal mania.

The two last cases of puerperal mania admitted died.

Of 73 cases at the Edinburgh Royal Asylum eight died, seven became demented, two were relieved, and 56 recovered. The cases of Dr. Ripping, of Siegburg, related by Bucknill and Tuke, were less favourable. Of 82 cases only 38 recovered, nine improved, 25 did not recover, four died, and six remained under treatment. Dr. Playfair quotes Dr. Batty Tuke to the effect that the mortality in such cases is 10 per cent. If they do not die in a short period, recovery takes place, chronic puerperal insanity being rare.

The unfavourable indications in cases which are likely to end unfavourably are these—great pyrexia, rapid pulse, foul tongue, lips and teeth covered with sordes, constant excitement and low delirium, and also refusal of food and drink. The mild cases and those almost certain to recover are where there are delusions regarding self or the child, inciting to suicide or child murder, accompanied with more or less excitement. After the acute and early stages pass off, the same generalisations apply to the existing delusions and hallucinations as in other forms of insanity.

The duration is a difficult matter to prognose, and is given differently by authors. Dr. Webster states, as the result of his statistics, that three of every five cases may confidently be expected to recover within a year, and 34 out of 53 recoveries took place within the first six months of the attack.

Brierre de Boismont states that cases of puerperal mania, exclusive of melancholia, have recovered on an average under his care in about a week! In Dr. Savage's carefully tabulated cases the great majority recovered in a little under three months, but even after 18 months' duration two cases recovered.

Puerperal Melancholia.—It is an often quoted aphorism of Gooch's that "mania is more dangerous to life and melancholia to reason."

This is so far true that the mania is very dangerous to life; but the melancholia is no more dangerous to reason than the mania, in fact, less so. When puerperal melancholia, which is much rarer than puerperal mania, exists, the prognosis is much the same, the disease is more obstinate, the delusions more fixed and permanent, and relapse common, yet recovery generally takes place. One case I remember of a young married woman who became melancholic after her first child. She developed strong suicidal tendencies, and had dreadful delusions. In three months she got well, but soon relapsed, and, in spite of excellent bodily health, remained full of melancholy delusions for six months. She ultimately got well, and has remained so for a year and a half.

(*d.*) *Insanity of Lactation.*—This form of insanity is much more common than the insanity of pregnancy, but less so than true puerperal insanity. It is generally a state of melancholia brought on by the anæmia and debility induced by prolonged suckling. The causes being removable and amenable to treatment, the prognosis is very good; in all the cases which I have seen, recovery was effected. It must be noted, however, that there is a considerable tendency to dementia in some cases.

(*e.*) *Hysterical Insanity or Utero-Mania.*—I will not enter here into the question of the existence of either of these forms, especially the latter, *i.e.*, as to their being specific forms of mania apart from the ordinary types of mental alienation.

In many cases of women suffering from hysteria and maniacal symptoms, between which there is no distinct boundary, we recognise a peculiar sexual element which gives such a colour to the disease that it is known under the name of ovarian, uterine, or hysterical insanity.

Its symptoms are well known, silly, childish manners and actions, mischievous, purposeless, and irresolute conduct, sometimes kleptomania, besides the frequent presence of delusions connected with the sexual organs, together with a certain lewdness and lasciviousness of speech and action.

Dr. Savage points out that such cases, if moral treatment is skilfully applied, get well, but if left to themselves in a crowded asylum where no curb or individual care could be enacted on their whims and propensities, being so plastic and will-less, they fit into niches, so to speak, from which it is impossible to move them. So, although the recovery-percentages are high, it must not be supposed that all get well.

I fear the good results obtained by the most modern treatment of hysteria by large magnets or plaques of metal, recommended by Prof. Charcot, and Dr. Müller of Graz, would not avail much here where the vagaries of mental alienation are superadded to a disease sufficiently irregular and strange in itself.

On Large and Small Asylums. By T. Claye Shaw, M.D., F.R.C.P., Medical Superintendent of the Middlesex Asylum, Banstead.

It seems to be generally assumed that asylums were built large, either on the idea that they could be more cheaply constructed or that they could be maintained at less average weekly cost than small ones, but I doubt if such is the true reason of the growth of large asylums, or of the development into large of small ones. Convenience would appear more to have determined the size than any other consideration, a thing not to be wondered at if such large counties as Yorkshire, Surrey, and Middlesex are regarded, where the visiting committees of magistrates are largely taxed as to their time in attending institutions placed often at long distances from each other. But all these considerations of convenience ought to, and no doubt would, disappear if it were abundantly manifest that the outcry raised against large asylums as causing a higher death-rate, lower recovery rate, and heavier weekly charge could be substantiated.

It is to be expected that those asylums that have most unfavourable statistics, taken from the averages in the blue book, should cost the most, because in proportion as the population is more feeble, the expenses for attendance and extra diet will be greater and the recoveries will be fewer; and there can be no doubt that in proportion as an asylum is large, so does it get filled with unfavourable cases in a greater proportion than would have been the case had it been

of moderate size and more select in its receptions; but it does not, therefore, follow that the large asylum is *per se* more expensive than the small one, and that this is so is shown by taking large asylums where the cases *are* selected, *e.g.*, Prestwich and Hayward's Heath, two asylums which receive the approbation of the Lunacy Commissioners more than any other asylum in the country, and also to some extent the Hanwell Asylum. Herein lies, I think, the worst that can be said against large asylums, especially where it happens that there are several in a county—that from their size they receive a number of broken-down and incurable cases that would have been *of necessity,* in a county having only a small or moderate sized asylum, kept in the workhouse. To my certain knowledge there are county asylums which decline to receive any cases complicated with epilepsy or paralysis, or any infirmary patients; in fact, that will scarcely take any but curable cases. How then can these be used for statistical tables, in a fair sense, on either one side or the other?

To take the average cost per head as the measure of asylum efficiency is as absurd as to compare death and recovery rates. It almost seems as if some argued that because an asylum is a little higher than another in recovery rate and lower in death-rate, and is also cheaper, that, therefore, it is a better asylum. Such do not see that as death-rate and expense rise together, so do high recovery-rate and cheapness go hand-in-hand with low death-rate, and that that is entirely due to the class of cases admitted; for look at the various summaries of average cost per week in different asylums and we shall see that it is not diet, not quantity of drugs, not salaries and wages that lower the deaths and inflate the recoveries, but that where these are largest (whether the asylum is a large or a small one) the results are least favourable. With the provision list in one asylum at 5s. 2d. per week per head the recoveries are not so numerous per cent. as in another of nearly the same size at 4s. per head per week, so that in the latter the diet can have had nothing to do with recovery. In these asylums the drug charge is identical, so that medicine cannot be credited with the advantage; in the less favourable of the two the salaries and wages bill is much larger, so that medical and general attendance tell in the inverse ratio of their quantity. To what then can the difference be attributed? Only to difference in the nature of the asylum population.

Dr. Chapman calls our statistics "unfavourable," but they are not so, having regard to the number and nature of the admissions. When our death-rate was high the provision list was high, and it was so *because* the death-rate was high. I was anxious to see that nothing in the way of extra diet should be wanting to stay, if possible, the large mortality. I do not think that the high diet very materially affected the death-rate, but with a number of feeble people in the population I should be sorry to see the diet-table reduced to what seems sufficient for some asylum populations, and that too in asylums averaging 600 to 700. During the last year there were 634 persons admitted here, and yet the average number resident during the year was only 133 more than the year before. Of those admitted, so feeble was their condition that 74 died, or nearly 11·7 per cent., a considerably larger percentage than in the case of Hanwell and Colney Hatch, because these two asylums, being nearer town than we are, received the pick of cases. It is thus manifest that if you have a feeble population, the vacancies in which are rapidly filled up by feeble (though perhaps acute) cases, the average number resident may remain about the same, but the percentage of deaths on the average number resident may be very large. Another thing to be taken into account in estimating the deaths in an asylum is the proportion of men to women in the population, and in the admissions; in proportion as the men are nearer in number to or beyond the women so will the average death-rate be higher, although the average number resident may be about the same; and it is worth while to notice how uniform is the death-rate on the female side (in established asylums), whilst the male rate varies from year to year. None of these facts appear to me to have been regarded by those who have lately compared the statistics of asylums as if they were all placed on a common basis, contained similar populations, and were built on like principles. Now as to the cost of different asylums. *Primâ facie* an asylum for 1,000 or 1,500 patients ought, all other conditions being equal, to be less costly than one for 600 or 700. If it is not there must be special reasons for the extra expense. I contend that there are special reasons. If anyone carefully examines the reports of the Lunacy Commissioners, he must see that the small asylums err in want of accommodation; either they have not a proper chapel or recreation hall, or the wards are too small and overcrowded, or the laundry arrangements are insufficient, whilst these

charges are not made against the newest and largest asylums; in fact, as the large asylums are more expensive so are they more complete. The old and small asylums are also very deficient in the modern heating and electrical appliances—expensive matters, but still considered necessary nowadays. I grant that great care is required in the construction of a very large building, more so than in the case of a moderate sized one; for if in the former any flagrant error in the system of ventilation, warming or general construction is introduced, the cost of altering it will be greater in proportion to the size of the building, and the expense of it might become disastrous. This leads me to ask how buildings can be compared as to expense of erection when they are undertaken by different building committees holding different views as to what is required, and how it should be done; when, too, the very position of an asylum may be such as to everlastingly knock it out from competition with others. The administrative staff of asylums is scarcely similar in any two instances, and from this alone it may be concluded that the nature of the patients differs. In night attendance I am inclined to think, from reading Reports, that the large asylums are better off, and no doubt an additional reason for the larger cost of provisions is due to the attention necessarily given to feeble patients during the night, and to the larger number of feeble patients that it is now generally allowed the larger asylums contain. It has often been a surprise to me how the paucity of night attendants does not lead to more accidents or to greater distress. In this particular we are, I think, in England much behind the Americans, who in some asylums have a night medical officer. What guarantee have we now, even with a lay night inspector, that restless general paralytics are nursed as their feverish condition requires? I am not now comparing large with small asylums so much in this particular, as I mean that in none is it what might be desired; and I infer hence that salaries cannot be compared, and the same may be said of wages, for the number of attendants required depends very much on the structure of the building. As a rule, the larger the wards the fewer the number of attendants required, relatively to the whole number of patients. As regards the pay of the higher officials, there is no sort of relationship between the number of patients and the consequent responsibility and the salaries—all is an arbitrary arrangement settled by the views of different committees of

visitors. Starting from my premiss that the larger the asylum the greater the proportion of feeble cases it must contain (unless in those where a selection is made), it goes without saying that in large asylums the hospital accommodation must be greater, the working bill larger, and the proportion of attendants greater, whilst the diet must be of a superior character and more in quantity, the stock of clothing greater, and the statistics less satisfactory.

The treatment of the insane at county asylums is at present a compromise. It is not scientific beyond a limited extent. It is a competitive system to try and show the best results in the most moderate figures, the data being alike in no particular except that the patients are paupers. Let us be candid. Is not the expense too closely scrutinized with regard to the interests of the ratepayers, who exclaim "if such an asylum is managed at so much per head per week, why should not ours be?" The very little difference that really exists between one county asylum and another (not to take extreme cases) and the close approximation in their statistics is a proof of this recognition of public criticism. Taking the various statistics of any asylum over a course of years, there will be found great diversities, but of late those of cost have approximated more.

Where is the standard to which asylum regulation must be referred? What central authority regulates the diet, or the amusements, or the supply of literature, or the quality of the clothing, or the numberless other things that mean comfort and probable cure, but which may be conveniently dropped without being missed? Practically none. There is no standard by which institutions may be compared. Is there any superintendent bold enough to affirm that he is not trammelled by considerations of the expense in the treatment of his patients, and that his results would not be greatly improved if he could put his hand more deeply into the asylum pocket? I quite acknowledge that there must be always a restraint in this direction, but what I do object to is that comparisons should be made between members of an imperfect system, that imperfection being greater or less according to the idiosyncracies of the individual who is at the head of it. The statistics of county asylums must be taken as showing merely what is done, not as correct estimates of what might be done. If lunacy is to be made a matter of statistics let us have a uniform system by which we can measure it. Why not have a definite dietary—at

least for the same county—a similar mode of keeping accounts and registers? Nothing to my mind is more unsatisfactory than the dietaries at different asylums—some give "slop" dinners for soup or stew, others milk and potatoes, others preserved meat, others fish, &c. And there is no doubt that though the food may be good, a great many patients will not eat it. Of course, patients are fanciful and some may say that like schoolboys they would object to anything given them, but there must be something wrong when (as the Commissioners' Reports show) the dinner if often left by a great many.

Again as to the number of patients in an asylum that can be "superintended" successfully. Some say 600 and 700, some say many less than this. Here again much license must be accorded as to what is meant. If it means that the superintendent must personally examine daily, and be acquainted with all the particulars of the cases, the number is far too large. If it means only a general supervision, then he will scarcely have enough to do. The case is not fairly put by those who divide the asylum population by the number of medical men and accord so many to each, for in many asylums the superintendent is occupied largely with the steward's business, and spends as much of his time in looking after the farm, attending sales and buying stores, as he does in attending medically to the patients. Take the amusements, which are a great tax on the staff of an asylum. In many asylums these figure as a large expense, and there is no doubt of their value; in others they appear hardly at all. There is not even a settled plan of asylum management. In some asylums the superintendent manages the gas, farm, and patients, even down to signing orders for pins; in others he only occupies himself with the patients. I do not say which of the two plans is the best, but I do say that it is absurd to compare the medical attention that patients must get in the two systems. Is there not after all too much fuss made about the number of patients a man has to attend to? There are, unfortunately, in asylums, scores of cases that are better looked after by the nurse than the physician, and I say, without fear of contradiction that the present treatment of lunacy in this country is *rudimentary*.

Except tonic treatment to improve the general health and special treatment for cases of suspected syphilis, gout, or lead poisoning, there is really very little that can be done. In most

cases the time for treatment has passed when the patients are admitted. So that the true way of keeping asylums empty is an anticipatory treatment which shall prevent them from getting full. Electrical apparatus, baths of various kinds are conspicuous by their absence, and now that the use of sedatives is generally discountenanced, it is easy to see why the drug and surgical instrument account generally averages ½d. a week per head. Beyond good dietary, open air occupation and protection, there seems little in the treatment of the insane nowadays, and the reproach so constantly brought against the medical men of this specialty for doing so little to advance it, will not bear criticism. If lunatic asylums were in large towns where libraries are easy of access, where men could meet others and compare ideas or refer difficult and disputed points, or if costly scientific apparatus could be procured at the expense of the asylum, and specialists in their use were at hand, there is no doubt more would be done, but such is not the case. Asylums and their officers are practically isolated. The functions of an asylum physician are more those of a general practitioner, and competition prevents the expense that would be incurred by the collection of scientific apparatus, library, &c.; whilst the worry and anxiety inseparable from an asylum whether of large or of small dimensions are such as to prevent (if a man is to do his duty towards his patients) any great devotion of time to scientific pursuits. I do not agree with those who say that little is done by asylum physicians. My opinion is that they go through a great deal of conscientious, harassing work, and it is only want of opportunity that prevents them entering more fully into the arena of public medical life. The treatment of insanity does not appeal so directly to the attention as in the case of the operating surgeon or the general physician, and, of course, the proportion of cases is very much less; but as for the results of asylums, taking 40 per cent. as an average of cures, they may be said to speak for the general efficiency. I contend, then, that whilst in county asylums much is done for the cure and treatment of the insane, it is an incomplete system, temporising only with the subject, and too heavily weighted, by competition and other considerations, to be taken as a standard of what the treatment of the insane should be; that comparisons between county asylums are impossible in the face of the differences that exist in the characters of their populations, the mode of their conduction, their situation, and their

special completeness and aptitude for convenient treatment and accommodation. Is there then no advantage in large asylums? There is no doubt that they might if desired be built more cheaply; that they are not always so simply arises from the fact that building committees do not always feel bound to keep within the strictest economical limits. When they do so, as seen in the cost of the Metropolitan Imbecile Asylums, they are successful. That they contain a larger proportion of feeble cases than would be found in smaller asylums is, I think, no disadvantage for the patient. The outcry at one time was to remove all persons of unsound mind from the workhouses and to place them in asylums. Now that these "chronic" cases are sent to asylums, and the demand has arisen for more accommodation, the desire is expressed to send back many of the harmless patients to the workhouses, and to reserve the asylums for the violent and curable cases. It would be a pity to revert to the old system of keeping great numbers of lunatics in workhouses, for there is no doubt that they are far better looked after in asylums; and, moreover, I doubt if there is one asylum in the country (I am speaking of the county asylums) that could afford to dispense with its harmless and quiet population, for this reason, that the existing accommodation is not suited for the treatment of any but a mixed class, and of a class too which contains a preponderating element of harmless patients. If acute and violent cases only are to have asylum treatment, then the smaller the asylum the better; but Dr. Chapman has shown that it is possible to have large asylums comparing in all respects more favourably in the results of management than small or medium-sized ones, mixed cases being under treatment.

What would have been the expense for Middlesex if, instead of having three asylums, there had been six? It might have been less, *but almost certainly it would have been much more*, for the extra sum expended in land would have reached many thousands of pounds, and it is difficult to believe that the cost of building the six would not have cost more than that of the three, whilst the charge for removal of patients backwards and forwards would have been a lasting source of expense, much greater than it now is.

CLINICAL NOTES AND CASES.

Cases of Self-Mutilation by the Insane. By James Adam, M.D., Medical Superintendent, Crichton Royal Institution and Southern Counties Asylum.

Injuries to self, or rather attempts at their infliction, are events of such frequent occurrence that in certain forms of mental disease their probability is indicated by the symptoms, and due precautions are usually adopted in asylums for their prevention, although no previous overt act may have given practical warning of the tendency.

It has, moreover, become the custom (so well are coming events foreshadowed to close observation of the insane) with regard to asylums, to consider that the greater or less number of successful attempts may be taken as a pretty sure indication of the character of their management and supervision, as well as of the care and vigilance exercised by those who are responsible for the immediate charge of patients.

But although instances of attempted self-injury are not infrequent, it will be found as a rule on inquiry that the intention in their infliction is suicidal in character—whereas instances of wilful self-mutilation, for its own sake, are much more rare, and an investigation into the various causes leading to the act is attended with so much the greater interest on that account.

The usual difficulty, however, presents itself in investigating the origin of cases of this kind that occurs in the investigation of many other forms of mental disease, or perhaps it exists even in a greater degree, owing to the condition of mind to which the patient is frequently reduced before being brought to an asylum after the injury, or to the difficulty of obtaining reliable evidence as to the mental condition of the patient before, at the time of, and immediately subsequent to, its infliction; and we are often baffled by obstinate and persistent taciturnity, or by stupor, the associate of the melancholic condition.

The task of investigation becomes easier, however, when we find the mutilative act the direct result of hallucination or delusion affecting the special senses; patients labouring under these forms of disease being sometimes talkative and communicative. They will readily tell you that the act has been committed owing to hearing a voice from heaven commanding them to do it; or by terror at seeing a vision, and in the frenzy pro-

duced thereby being impelled to self-mutilation or injury, or by fear of loathsome disease produced by a perverted sense of smell, or of poison by diseased sense of taste.

It thus becomes of importance when well authenticated facts are ascertained with regard to cases of this kind that they should be brought under the notice of the profession, and as it happens that several cases of more than usual interest have recently been under my own observation, I trust that a short account of some of them may not prove unacceptable to the members of our Association.

Before proceeding with the narrative of these cases, however, I would briefly allude to the importance of the subject in its general as well as its medico-legal aspect, and I would also, with this object in view, call to remembrance two cases of this kind which were published in the "Journal of Mental Science" for April, 1882.

In the first of these, reported by Dr. Howden, of Montrose, a tendency to self-mutilation was shown to exist in several members of the same family, and the injury inflicted was similar in character in each member, although it does not appear that one was even aware of the act which had been perpetrated by the other many years before.

The second case, that of a farmer named Brooks, is of peculiar interest, medico-legally; for this man, in whom insanity does not seem even to have been suspected, not only inflicted an injury upon his own person, but he succeeded in getting a jury to believe the false story he told with regard to the manner of its infliction, and was thus the means of causing two neighbouring farmers, who were perfectly innocent of the crime with which they were charged by Brooks, to be sentenced each to ten years' penal servitude. What mental state he was in, or what moral or other obliquity existed in Brooks to account for his conduct, is not shown by this account.

In connection with the medico-legal aspect of this subject, I would also briefly remark upon those curious cases sometimes causing much anxiety which are occasionally met with, especially among the more educated classes, where circumstantial statements are made with regard to supposed injuries said to be self-inflicted of which there is no evidence. A remarkable, although extreme, instance of this kind occurred many years ago in the case of an eminent scientific man, who had been educated as a surgeon. He laboured under occasional maniacal attacks, alternating with extreme depression. This gentleman informed me, when

I went to visit him one morning in his bedroom, that in the course of the night he had dislocated his ankle and hip joints on one side, and broken both bones of the leg on the other; as if this were not enough, he spoke also of a wound in the temporal artery. He gave evidence of his own firm belief in the existence of those injuries by having carefully and accurately bandaged all the parts named for them respectively, and for this purpose he had torn his sheets into bandages, and he resisted with evident anxiety the removal of those bandages, whereupon not the smallest sign of any injury was found to exist.

I come now to record two remarkable cases of self-mutilation, one of them occurring in a male, the other in a female patient, both having the same name, but I cannot trace that they are related in any way.

With regard to the female patient, the first accounts I heard of her were of a very unusual and alarming character, and they were somewhat of the following tenor :—That if she were left alone, or free from restraint for even a single instant, some dire tragedy would certainly ensue; that if her hands were allowed to be free for one moment, she would gouge out her eyes with her fingers, pull out her tongue, or do something else equally dreadful. She was reported to have occupied a "locked bed" every night for a very lengthened period, and to have seldom been without some form of restraint for many days together. It was further reported concerning her that self-injury was attempted at every possible moment, day and night, in every possible way; that she had an attendant day and night for the whole time of her residence, whilst frequently and for long periods she had required more than one. Full details of the case, as recorded in the Case Book, would occupy too much space. I therefore give only the following extracts referring to her condition in each year of her residence :—

Case I.—Mrs. B. was admitted to the Crichton Institution on the 15th October, 1875 ; was then stated to be 45 years of age; married, with a family; had previously been a governess; and was one week insane prior to admission. The cause was stated to be the climacteric period. She had attempted self-violence by various means, and was deluded on religious subjects.

Dec. 2nd, 1875.—There occurs the following entry in the Case Book:—

"This is a very bad case, in which little or no improvement has taken place. The patient, an hour and a half after admission, gouged out her right eye, which now presents a horrible wreck. She refuses

her food, and has to be fed artificially three times a day. Restraint is employed to prevent her gouging out the other eye, as she is on the *qui vive* to get an opportunity of doing herself injury."

Dec. 10th, 1876.—Is losing ground bodily; occasionally restraint is necessary to prevent her injuring herself, and she is constantly watched by an attendant.

Oct. and Nov., 1877.—Still requires constant watching, and occasionally some form of restraint to prevent self-mutilation.

Is worse again, refusing her food, trying to put her head into the fire. She wears the camisole at present constantly, from the fear that she may gouge out the remaining eye.

Sept., 1878.—Has not required feeding with the stomach pump for some time. She still has delusions about "spirits" and "words," or rather hallucinations of vision.

Nov., 1879.—The camisole has been discontinued, its place being taken by soft gloves of chamois leather, which are tied on during the night. These are found to afford sufficient protection, without causing the cramped position and interference with respiration, inseparable from the use of the camisole.

1880.—The patient is in restraint by means of a straight waistcoat by day and night. An attendant is always beside her, and for additional safety by night she sleeps in a locked bed, which she has occupied for several years. About this time an investigation reveals the following physical and mental condition :—

A greatly reduced, exhausted, and emaciated frame—a cachectic, hollow, and worn facial appearance, the right eye is wanting, the hair is grizzled and grey, and there are marked facial lines; the cause of the repeated mutilative attempts of which she has been guilty, and to which she still has a determined tendency, is hallucination of the senses, both of hearing and vision, whilst the other special senses are markedly disordered as well. She hears voices commanding her to do the acts referred to. She sees her children burning in the fire, shrieks with terror, and tries to push in her head beside them. She says she feels she is not worthy to live, because she is so diseased and wicked, that she is a burden to herself, and she refuses her food because it is poisoned. To repair defective nutrition is clearly indicated, and she is ordered milk, eggs, beef-tea, port wine, &c. every two hours, with directions to report if not partaken of.

May 10, 1880.—Has been walking out for some time regularly in the grounds ; the depression is intense in the morning.

Oct. 1.—To-night, for the first time (for many years), slept in an ordinary bed, and really did very well, restraint of all kinds had been removed ; but an attendant is with her by day, and the night nurse sits in the dormitory occupied by the patient by night.

March, 1881.—Has continued to occupy an ordinary bed since last date, and generally she sleeps well. She has also taken her food well. Altogether there is very definite improvement in her case.

1882-83.—From the time of the last entry to the present the improvement then reported has been well maintained, and restraint of any kind has never again been found necessary. Although still subject to the same hallucinations and delusions, they are well under control, and do not influence her conduct in the same manner as previously. She is never without supervision, but she is allowed a considerable amount of liberty to admit of her taking necessary exercise. She attends and enjoys the various amusements, and she enters with spirit and animation at times into the dances. She plays the piano, and altogether leads a life of as much composure and comfort as can be expected in a case of the kind, in which recovery cannot be hoped for.

The second case of self-mutilation referred to was quite recently brought under my care in the Southern Counties Asylum, and the following are the particulars with regard to it:—

Case II.—W. B.: admitted 12th March, 1883. He is 18 years of age, tall and handsome in feature, single, a farm servant, by religious persuasion a Presbyterian. It is a first attack of mental disease; he has been four days insane, the cause not known. He is stated to be neither epileptic nor suicidal, but dangerous to others. No member of the family is known to have been insane. The facts indicating insanity, as given in the medical certificates for admission, are: "Violent in his conduct at times, has fixed delusions, prays that he may be delivered from his enemies; states that I, along with others, am plotting against him." His mother states he says he is the "Apostle Paul," and that he is being persecuted; he refuses food from her, saying that she wants to drug him, and deliver him to his enemies.

The following particulars with regard to the mutilated condition in which he was found when admitted have been ascertained:—

On the sixth of March last, while employed as a farm servant, he told his fellow-servants, who were then at dinner, that he was going home to his father's house, about two miles off; but it appears that, instead of doing so, when alone in a field a short distance off, with a sharp pen knife, he completely and cleanly removed the whole of the penis. The hæmorrhage ensuing from the wound was very great, and feeling alarmed about it, he went to some running water near at hand and bathed the wound; the water being very cold at the time, it seems to have assisted in arresting the hæmorrhage.

The lad's master soon after found him lying in a field with marks of blood about him, and had him conveyed home, when he was medically attended to.

I am indebted to Dr. Taylor Monteath, of New Abbey, who attended him, for the following interesting particulars of the case:—

On the 6th March last I was called to see him, and found him in bed; he was quite rational at the time, but seemed much dejected in

spirits, and expressed his regret several times to both his mother and myself for what he had done. The hæmorrhage had ceased ; there had been oozing from the cut surface before I arrived, but the lad's mother had applied cobwebs, which caused a clot to form, and arrested the bleeding.

On questioning the lad I found he had been in rather low spirits since Martinmas. His mother states that previously to Martinmas he had always been of a cheerful disposition, but after that term she began to notice a change in his disposition. He became dull and moody, and endeavoured to eschew his friends as much as possible, sometimes going a long way out of his road to avoid friends. He admitted that he masturbated, and when asked why he cut off his penis, he said that he considered he was only doing his duty, and following out the Scriptural injunction that " If thy right hand offend thee cut it off." He had been reading some quack publications on nervous debility, and also Salvation Army publications.

The lad's mother says, regarding him, " I cannot help thinking he overtaxed his strength at the putting out of a fire at the other farm on the 4th March. Everyone said he wrought like two men. That after he went to bed on that night, and slept about two hours, he took it into his head that someone was going to set fire to his master's farm, and he then took means to prevent them by watching all night and putting things out of the way ; and next day he was at his work, but that confusion came on him again all day and all night, and on the Tuesday he was set to burn thorns, and while doing so he got worse, and an impulse came upon him that he ought to do something. So he got his Bible, and, happening to open it in Leviticus, he believed it was his duty to do what he did ; but he said if he had opened his Bible at any other place, he would not have done so. He had also some time previously, had serious thoughts about his soul."

On admission this patient was in a greatly reduced condition, partly from inanition, and partly from loss of blood previously ; the pulse was 60 per minute, weak and irregular ; the heart's action weak, and a tendency to lividity in the extremities indicated a weak general circulation. There were several scratches and bruises about the patient's body, which are recorded in the " Physical Condition Register ; " but the most serious injury was the removal of the penis near the root, leaving an unhealthy looking sore. The patient persistently shut his teeth against food, so he was fed twice with the stomach pump on the day of admission. On each occasion, however, most of the food was rejected by the stomach. He removed the dressings from the wound repeatedly, spat freely at everyone, prayed frequently, when food was offered to him asked if it was God's will, &c. A special attendant was placed with him during the night.

13 March, 1883.—Patient fed with stomach pump, but took the rest of his food ; he will not allow the dressings to remain on the wound ; he slept seven hours at night.

14 March, 1883.—Took plenty of food to-day, and with a little management did not remove the dressings; he spent a quiet night, sleeping three and a half hours; special attendant at night still continued.

16 March, 1883.—Continues to take food well; patient was removed to Infirmary Gallery, and special attendant discontinued.

20 March, 1883.—Patient going on fairly well; occasionally he removes the dressings from the wound; is very self-willed. Up till to-day he has always passed his urine in bed, apparently wilfully; to-day, however, he made an amendment in this way.

24 March, 1883.—W. B. continues to improve satisfactorily; habits improved; has been visited by his friends, and seems the better of it; wound healing kindly.

March 26, 1883.—He has improved, but still has delusions, such as that his relations are living in the asylum, and his bodily health and condition are both much improved; the cut surface is healing slowly but satisfactorily.

Note.—For some time after admission there was much taciturnity, depression, and stupor; this was followed by excitement, an exalted and religiously exhilarated mental frame, during which he sang and repeated psalms and hymns by night and day. This condition was succeeded by a gradual return to his normal mental condition, in which he now remains, the wound having healed by granulation over its entire surface.

Tubercular Meningitis in Insane Adults. By Wm. Julius Mickle, M.D.

Some examples of tubercular meningitis occurring in adult insane males will be briefly summarized.

In the first example (Case I.) the tubercular meningitis was, as usual, mainly of the base of the brain, and it occurred in a patient who had formerly recovered from symptoms of phthisis with pleurisy, but in whom, long afterwards, pulmonary tuberculosis came on, and, finally, tubercular meningitis, the last occurring after some lowering of the general health by intestinal disease, the traces of which were also found at the necropsy; while the lungs showed trace of former, cured phthisis.

In the second case (Case II.) meningitis, and chiefly of the base, supervened on indications of pulmonary tuberculosis; and at the necropsy, besides the tubercular affection of the cerebral meninges, there were found tuberculosis of the lungs, of the pleura, of the old pleuritic pseudo-membranes and adhesions, and of the peritoneum; also, enlarged indurated and caseous bronchial glands, and tubercular nodules in the spleen.

The next two cases are of somewhat different character, for in them the tuberculosis was mainly of the meninges of the cerebral convexity; the inflammatory action had not advanced beyond a very early stage.

In one of these (Case III.) the cerebral affection supervened on chronic phthisis with much cavitation and tuberculosis of lungs, tuberculosis and calcareous changes in the bronchial glands, tubercular mesenteric glands, slight tubercular ulceration of small intestines, and slight incipient tuberculosis of kidneys, old perisplenitic adhesions, and adhesion of right adrenal to the kidney. The only intra-cranial tubercles were on the cerebral convexity, as minutely described below; but the lateral ventricles were filled with a turbid serous fluid, and the tissues around them were much softened, so that the symptoms were perhaps partly due to disease in this situation, which had not yet attained to the formation of visible tubercles.

In (Case IV.) the other example of this latter group the visible meningeal tubercles were confined to the right parietal, occipital, and temporo-sphenoidal lobes; thus chiefly following the distribution of branches of the right posterior cerebral artery, although found also in parts supplied by the anterior and posterior parietal branches of the right middle cerebral artery. An unilateral and localized distribution of the tubercles of this kind, is not unique, however, although rare. There were also slight indications of an irritative, or possibly slightly inflammatory, process at the base. In the lungs were cheesy masses, and sub-pleural tubercles; numerous large yellow nodules in the spleen; one such in the left kidney; caseous abdominal glands, especially near the pancreas; and old close perihepatitic adhesions.

In reference to the first group there is principally to note that—as compared with similar examples of the usual pathological form of tubercular meningitis in sane adults—the duration of the affection was in both cases unusually short, and that in both coma came on rapidly; while in one there was, throughout, no diminution of the pulse-frequency, which on the contrary was high.

The latter group, or that in which the tuberculosis was, mainly at least, of the convexity instead of mainly at the base, differed in other respects from the former group chiefly in this—that symptoms of the tubercular cerebral affection occurred only when the patients already had somewhat advanced pulmonary disease; and that the inflammatory action was only

so slight and incipient that it could scarcely be said that much more than tuberculosis was present; and that, while the cerebral symptoms were sufficiently marked, there was no strictly localized paralysis observed in any part.

In the third case (Case III.) (*a*) the final cerebral symptoms, though decided, were not distinctive, the tuberculosis being of the convexity.

(*b*) The modified Cheyne-Stokes's respiration, or exaggeration of a respiratory condition sometimes found in basal tubercular meningitis, was an interesting feature in this case in which no tubercle was found at the base, and only slight inflammatory indications.

(*c*) Here the so-called cortical motor zone was somewhat affected, and yet without local spasm, convulsion, or paralysis being observed, the inability to stand during the last two days being apparently part of the general muscular relaxation and asthenia then existent.

(*d*) The supposed cortical visual centres were considerably affected, but without prominent visual symptoms. The insidious formation of tubercle must, however, be kept in mind.

In Case IV., wherein tubercle was limited to the posterior part of the right cerebral convexity and base, (*a*) the cerebral symptoms were of short duration, and motor symptoms were absent.

(*b*) In this case, also, with vivid, long-continued auditory and tactile hallucinations, coincided well-marked implication of parts of the supposed right auditory cortical centre, and of parts adjoining the supposed right tactile centre, while the right angular gyrus also suffered without the production of symptoms referable to the visual sense; and, without motor symptoms arising, part of the right so-called cortical motor zone was affected. Here, again, the mode of growth of tubercles, and the tolerance of their presence sometimes exhibited, must be kept in view.

Case I.—*Tubercular Meningitis, basilar.*—J. M. Private 77th Regiment, admitted at the age of 30, died aged 38. First attack of mental disease, of somewhat indefinite previous duration, and unknown cause. Offering to re-engage at the end of ten years' service, he was rejected on account of "varix." Then, whilst returning to England from India, he attempted suicide by jumping overboard at sea, without having shown any previous symptoms of insanity, so far as was recorded. After this, melancholia was marked; he suffered from the delusions that he had committed an unpardonable

sin, as well as high-treason, by being in love with the Queen; and from great terror lest he should be beheaded on that account.

For several years the melancholic depression continued to be extreme, and to the above delusions were added others, such as that he would be hanged for the murder of a young girl at Aldershot, and that he was guilty of various other unpardonable crimes. He was clean, and at times industrious. Three years after admission indications of pulmonary phthisis were observed, and cod-liver oil was given.

More than three years later there was pleurisy on the left side, apparently connected with the pulmonary disease. Recovery took place under potassium iodide and bicarbonate, and subsequently tonics; but there were permanent indications of the past mischief, and the right pleura was affected too.

About a year still later there was scrofulous cervical adenitis. These swellings, he said, had been caused by the angels trying to strangle him. They were incised, &c., and perchloride of iron and sulphide of calcium were given internally, the former for several months.

After this he had delusions as to being importuned nightly by prostitutes. Also an attack of severe and prolonged entero-colitis, from which he entirely recovered; but diarrhœa returned two months later, or a fortnight before death. At the left apex were prolonged expiration, slightly bronchial character of breath-sounds, slightly increased vocal resonance, fair percussion-note; towards the nipple thin, feeble inspiratory sound; at the right apex somewhat blowing respiration; laterally rough breathing.

On Oct. 16th, the bowels being relaxed, he was put to bed, and under treatment. Appetite gone.

On the morning of October 17th, restless and confused, he fell out of bed, passed thin loose motions on the floor, but had no convulsions. He took but little food. Temperature 98·3°; pulse 50, compressible, feeble; face somewhat flushed; pupils rather wide and sluggish; eyelids slightly œdematous; urine free; over the right chest, sonorous râles; some indistinct subcrepitant and other sounds at left front apex; some dulness over the lungs posteriorly. There were great mental confusion and restlessness, he was unable to answer questions, and would not put out the tongue at request. Later in the same day were stupor, and even coma, snoring respiration, and a small compressible pulse of 46 in the minute. By catheter 40 ozs. of urine were drawn off, of high colour, non-albuminous, containing abundant pale urates, and detritus of bladder-mucus and epithelium. There was palsy of the right third cranial nerve, producing dilatation of the right pupil, ptosis, and external strabismus: both pupils were very sluggish, the left was slightly dilated. The face was flushed, the body warm, the abdomen tympanitic. The head was elevated, and an ice-cap was applied to it. Ergot. Diuretics.

18th. Supported by nutritive enemata; pulse small, 100; axillary temperature 96°; respiration 36, mostly abdominal; abdomen still

somewhat tympanitic; no vomiting; had passed more than 30 ozs. of urine since preceding day, and more was drawn off by catheter. Later, some resistance to passive motion, especially of the right limbs, and some paresis of the left limbs were perceptible; coma continued; dorsal decubitus; death at 4 p.m.

Necropsy, 48 hours after death; medium height, spare and slender build, rather thin. Scalp thick; cicatrices of strumous, cervical ulcers.

Calvaria thin; moderate amount of blood in sinuses; arachnoid slightly opaque; inner meninges tough, not markedly hyperaemic, not adherent to brain; no subarachnoid serum over cerebral convexity, where, indeed, the gyri are closely packed; cerebral grey cortex slightly soft, thin, pale; white matter rather soft; puncta cruenta well-marked, clots drag from the vessels on section. At the base, in the Sylvian fissure, opposite to the middle transverse diameter of the insula, attached to the pia-mater, is a firm whitish tubercular nodule of the size of a pea, indenting the left third frontal convolution. The walls of the Sylvian fissures are adherent, and in both fissures abundant, soft, dirty-whitish, tubercular granulations are seen in the pia-mater, particularly beside the branches of the middle cerebral artery. The interpeduncular space and the parts immediately in front of it are covered by whitish layers of lymph, and by turbid serum, which extend to the entrances of the Sylvian fissures and encroach upon, or compress, the nerves coursing through this area. The right third nerve, however, does not seem to be more affected thereby than the left, yet there is a small blood clot adjoining it in the cavernous sinus. The basal grey cortex overlying the exudation is much softened. Fornix very soft; basal ganglia sodden and rather soft. Pons Varolii and medulla oblongata rather pale, the pia-mater covering them contains a number of minute, transparent, almost colourless granulations. Cerebrum 43½ ozs.; cerebellum 5½ ozs.; pons and med. obl. 1 oz.

Heart 10 ozs., fairly healthy; 2¾ ozs. pericardial fluid. Right lung 25 ozs., extensive tough old close pleuritic adhesions. Lung congested, studded in parts with constellations of grey semi-transparent granulations. Left lung 23 ozs., thick leathery old close universal pleuritic adhesions. Lung everywhere thickly studded with grey or dirty-whitish granulations, which are much more numerous and diffused than in the right lung. Diffuse hypostatic congestion and pneumonia of base and posterior surface. At both apices are the indications of former, cured phthisis.

Kidneys fairly healthy, cortices rather thin, 5½ and 6½ ozs. Spleen, 7½ ozs. Liver soft, and of slightly yellowish hue. In the bowel are a number of cicatrices of former healed ulcers.

Case II.—*Tubercular Meningitis, basilar.*—S. B. 2nd battalion, 18th Regiment, single, admitted January 12th, 1872, then aged 28. First attack of mental disease, and of one year's previous duration;

prior treatment at Devonport and Netley; cause "uncertain," dangerous, not epileptic or suicidal.

Like the former patient, this was a somewhat thin and spare man of medium height, and nervous temperament. Mental disease was first recognized when he was undergoing imprisonment at Millbank.

The dominant delusions then were that his food was poisoned, and that he was acted on by galvanic batteries. He was often excited, fiercely cursing and swearing at those in charge of him. After admission here, the mental state was similar to that just described, and he was extremely suspicious, and, when not abusive, was taciturn, unsocial and exclusive. Subsequently he was less disagreeable, but was satirical when jocose.

In 1874 a few crepitations were once observed over the lungs, and slight arthritis affected the left knee.

In 1875 he had delusions as to lamps being put on his feet, and women set to annoy him.—March. At the left apex-front were slight dulness on percussion and increased vocal resonance and fremitus, respiration slightly blowing; accentuation at the right apex-front of the usual characters of the respiration there. Ordered cod-liver oil, iron, compound tincture of camphor, quassia, and spirits of chloroform; frequent warm baths; and to continue on the extra diet previously given.

May 9th. Had been ailing and feverish since May 7th, with pains at the back of the head, quickened pulse, and occasional vomiting. Pulse 98; tongue furred; appetite fair; bowels costive; at left apex-front some dulness and bronchial character of voice and respiration, occasional musical râles; in supra-clavicular region somewhat bronchial breathing, and inspiratory clicks; bronchial râles posteriorly; signs less marked on right side; cough only slight at any time; no thoracic pain. Subsequently, general bronchial râles, especially left side.

After this there were pain about the head and back of neck, and occasional vomiting, the latter especially occurring on the 10th and 11th, but being neither very frequent nor very urgent. He was morbidly abrupt, quick and sharp in speech and in movements; pulse on 10th, 112, constipation continued, only slight cough.

On the 11th, delirium supervened, his replies were completely incoherent and irrelevant, and then speech was reduced to a quiet unintelligible muttering. Then he became semi-unconscious, and finally comatose, with loud laboured frequent spasmodic respiration, as if from diaphragmatic spasm. The decubitus was dorso-lateral, and inclined towards the right side, the knees were flexed but not drawn up, the abdominal muscles contracted on pressure, but before becoming comatose he had denied any, except slight, abdominal pain or tenderness. Pulse 120 and weak. He died on the 12th, the condition of stupor and prostration having steadily augmented since the preceding day.

Necropsy, 34 hours after death. The dura mater was slightly injected, it stripped off readily from the calvaria, as did also the pia-arachnoid from the brain. The meningeal veins were moderately full. Slight interlobar adhesions existed. On the convexity the sulci were slightly wide and rounded in the frontal and parietal regions, and over the latter and the posterior part of the former there was slight sub-arachnoid serosity. The cortical grey matter was of ordinary depth, rather pale as a rule, but mottled in parts, rather soft; white substance fairly vascular and softish. The fornix was soft, the lateral ventricles contained a moderate amount of fluid, and their ependyma was somewhat thickened and opaque; basal ganglia slightly softened. Foregoing characters alike in the two hemispheres. On the inferior cerebral surface, and on the left side of the inferior cerebellar, were tubercular granulations in the meninges, and turbid sero-fibrinous effusion. Pons Varolii and medulla oblongata rather soft, and the meninges covering them slightly infiltrated; pons hypervascular. Right cerebral hemisphere $22\frac{5}{8}$ ozs., left do. $22\frac{1}{2}$ ozs., cerebellum $5\frac{1}{8}$ ozs., pons and. med. obl. 1 oz.; fluid from cranial cavity $1\frac{1}{4}$ ozs.

Heart $10\frac{1}{4}$ ozs., healthy save for febrile changes in its muscular tissue, pericardial fluid $1\frac{1}{2}$ ozs.

Right lung 35 ozs., nearly general old pleuritic adhesions, these and the partially thickened pleura being highly tuberculous in many parts; $2\frac{1}{2}$ ozs. of blood-stained serum in pleural cavity; much secretion in bronchi. Firm minute tubercular granulations were scattered throughout the three lobes of this lung, most were whitish and opaque, a few were semi-transparent. The posterior surface and apex were congested and œdematous. Left lung $20\frac{1}{2}$ ozs., old, tough, leathery, pleuritic false membranes, binding the lung to the chest-wall, and enclosing collections of blood-stained serous effusion. Sub-pleural, dense, firm, opaque and dirty-white tubercle in masses and scattered nodules at the apex, and below the apex on the anterior surface; a few semi-transparent granulations thickly scattered throughout the rest of the upper lobe; a few tubercular nodules in the lower lobe. Bronchi congested and laden with secretions. Bronchial lymphatic glands indurated and caseous, and one beneath the left bronchus enormously enlarged.

Kidneys $4\frac{3}{8}$ and $4\frac{1}{2}$ ozs., cortices rather thin. Spleen $6\frac{1}{4}$ ozs., firm, containing whitish tuberculous nodules. A few scattered peritoneal tubercles, especially on the under surface of the liver. Liver $50\frac{1}{2}$ ozs., right lobe reddish-grey, left yellowish; healthy adrenals; irregular congestion of intestines.

Case III.—*Meningeal tuberculosis of convexity. Incipient inflammatory changes at base.*—This and the fourth case have been published elsewhere.

T. O., 70th regiment, admitted May 16th, 1861; died August 15th, 1878, aged 41 years. This patient, at one time maniacal, with hallucinations, and with extravagant notions as to his rank, and

latterly for many years fairly quiet, tractable, and somewhat demented, became the subject of pulmonary phthisis of a somewhat latent form, first noticed between three and four years prior to his death. It was more advanced in the right lung, and was attended with attacks of bronchitis, accompanied, or not, with symptoms of the asthmatic order; while, latterly, diarrhœa made appearance from time to time.

Not until eleven days before death did he become permanently bedridden. Four days before death he was very feeble, emaciated, and his pulse was rather slow. Thus he remained, without any marked alteration, until the day before death, when he was very prostrate and feeble, and cerebral symptoms were first noticed.

For on this day he was mentally dull, heavy, apathetic, drowsy, took little notice of his surroundings; paid but little attention to questions put, or to his comforts, wants, or inconveniences; when addressed was slow to understand, and brief, or even irrelevant, in his replies. The act of swallowing was very slow and difficult, and some hiccough was present. From fraction of minute to fraction of minute the pulse-rate varied from 78 to 96; and the respiration, which was 26 on the average, also varied in frequency; in fact a modified Cheyne-Stokes's respiration now existed. On some occasions there was merely an ascending and descending respiratory rhythm; but at others a distinct apnœal period, though only a brief one, was interpolated. In the latter event the respiratory period consisted of five or six respirations, gradually increasing in fulness and loudness, and it alternated with a recurrent respiratory pause of about six seconds' duration, which completed the respiratory cycle. At first the pulse was rather slower during the respiratory period, but in some later observations no difference in pulse-frequency was perceptible in the two periods. Subsequently, respiration became more regular, and varied from 28 to 30 per minute, the pulse simultaneously becoming fuller than it had previously been. But again the modified Cheyne-Stokes's respiration returned later in the day. Temperature in left axilla 98°. The left hand was swollen and œdematous, the feet were slightly œdematous. The urine was free from albumen. There was no perceptible spasm, convulsion, rigidity, or paralysis.

Next day I was absent, but was afterwards informed that the condition remained much the same, that the pulse was feeble, and dysphagia persistent, that the patient became more dull, drowsy, and inattentive to his surroundings, and incapable of replying to any question. He died at 6.20 p.m.

Necropsy, 56 hours after death. Calvaria unsymmetrical, diplöe moderately vascular. A little fluid blood in arteries at base; slight arachnoidal opacity over anterior half of inferior cerebral surface. The general vascularity of the meninges was not extreme, but the meningeal veins were turgid over the posterior half of the upper aspect of the cerebrum. The arachnoidal villi were large at the vertex. There

was patchy opacity of the arachnoid, and considerable pia-matral œdema, both principally over the vertex. Slight old interlobar adhesions.

Over the superior surface of the *right* cerebral hemisphere, and partially embedded in the pia-mater, both in its free meshes and immediately beneath the arachnoid, were numerous minute, whitish, tubercular granulations, many of which had formed cohesions with the cortical grey substance, so that upon their removal with the meninges the cortex was left in a slightly eroded state. This erosion especially affected parts of the posterior half of the first and second frontal gyri, the lower half of the ascending frontal, and parts of the supra-marginal, angular, and first and second annectant gyri. Some of the slight adhesions seemed to occur independently of the presence of tubercles at the very point of adherence. At several points the granulations were collected into dense constellations, which, by their coalescence, had formed tubercular nodules sunken in the anfractuosities and attached to the subjacent grey cortex, portions of which adhered to the nodules when they, with the pia-mater, were removed, thus leaving erosions more considerable than those already named. These nodules were highly vascular and hyperæmic, so much so that a purplish background, formed by injected vessels permeating a cluster between its constituent elements, was in vivid contrast with the whitish sections of the soft, succulent granulations themselves. A little yellowish softening also surrounded one of the nodules. One of these nodular clusters was near the middle of the right second frontal gyrus; and connected with it was another which invaded sulci of the third frontal gyrus. A third reposed in the interparietal fissure, between the postero-parietal lobule and the supra-marginal gyrus. Here, also, was a large, pervious, apparently atheromatous or indurated vessel, surrounded by greyish and dirty-whitish tubercular infiltration, and this by considerable hyperæmia.

Over the *left* cerebral hemisphere the condition was much the same, but here the granulations were sparse and the nodules absent. Here the cortical erosions, left on removal of the tubercular meninges, were chiefly on the supra-marginal and angular gyri; to a less degree on the second frontal, the two ascending, and the first and second temporo-sphenoidal convolutions, and the postero-parietal lobule.

No tubercles were found on the internal, or on the inferior surface of the cerebrum.

The whole brain was flabby; the gyri were slightly wasted in the frontal and parietal regions, and were somewhat softened. The grey cortex was pale in front, but of considerable vascularity in the middle region; the orbital cortical substance was more healthy. The white substance of the brain was of diminished consistence, slightly hyperæmic, and spotted with numerous puncta cruenta.

The lateral ventricles contained turbid serosity. The fornix and corpus callosum were extremely softened, as also were the basal

ganglia, and all the tissues immediately surrounding the lateral ventricles.

The cerebellum was diminished in consistence, of no extreme vascularity, and to its surface were slight adhesions of the pia-mater. The pons Varolii and medulla oblongata were flabby. Right cerebral hemisphere $19\frac{5}{8}$ ozs. ; left ditto, $19\frac{1}{8}$ ozs. ; cerebellum, $4\frac{3}{8}$ ozs. ; pons and med. obl. $\frac{3}{4}$ ozs.

As for the other parts, I may briefly summarize by saying that there were—the general wasting of phthisis ; a small heart ; a yellow, flabby, soft and small liver ; slight incipient tubercles of kidneys ; slight tubercular ulceration of small bowel ; enlarged and tubercular mesenteric glands. Tubercular bronchial glands, one calcareous. In *left lung*, extreme almost general tuberculosis, with numerous small cavities, the tubercles for the most part were of dirty-white colour. *Right lung*, much excavation, riddling the upper, middle, and part of lower lobe ; the cavities being mostly spread out horizontally. Old, close, general, leathery, pleuritic adhesions, binding the lung and thickened visceral pleura to the chest-wall. Right lung 50 ozs., left, 29 ozs. Liver $43\frac{1}{2}$ ozs. Spleen $7\frac{3}{4}$ ozs., capsule thickened, adherent to surroundings. Left kidney $5\frac{1}{4}$ ozs.; right $4\frac{1}{4}$ ozs. ; adrenal adherent to it.

Case IV.—*Unilateral localized meningeal tuberculosis of cerebral convexity. Slight inflammation.*—J. S. Private 59th Regiment, height 5ft. 6in., weight 133lbs., admitted June 6th, 1877, died February 10th, 1880, at the age of 34 years. There was a history of primary syphilis, incurred in 1870 ; of jaundice, and of ague, in India, in 1872 ; of bronchitis, in India, in 1875 ; of being under medical observation on account of suspected mental disease in 1876 ; of debility in 1877, and of mental aberration in the same year. Exposure to tropical heat and climate was the cause assigned for the mental disease. The delusions of annoyance, &c., and, later, of loss of organs, were associated with hallucinations of hearing and of touch ; listlessness, failure of memory, and a tinge of depression accompanied them. Pulmonary tuberculosis appeared and made progress, and onyxitis, and, finally, slight pleurisy, succeeded to it. For two or three days before death he complained of " pain all over him," and on the last day of life he was somewhat delirious, loquacious, and chattered and muttered incoherently.

Necropsy (abstract of), 28 hours after death.

Dura mater unusually adherent to calvaria. Some arachnoidal opacity, especially over the right cerebral hemisphere. Some wasting of brain, and slight pia-matral œdema over the anterior three-fourths of cerebral convexity.

Moderately firm, whitish, tubercular granulations over the posterior part of the right angular convolution ; yellowish nodules over the middle of the right ascending parietal convolution, partly embedded in the grey substance, and partly projecting therefrom, some being buried in the fissure of Rolando, and all being so connected that,

while bringing away with them portions of the grey cortex (when removed with the meninges), they separated conjointly as an irregular mass formed by the fusion of several nodules, which were caseous internally, and were connected one to another by firm fibroid tissue. On the under surface of the right occipital lobe the membranes were the seat of numerous, almost confluent, dirty-whitish granulations, which appeared on section to be more or less caseous, and formed an irregular layer, beneath which the convolutions were softened, pulpy, and of dull-red hue. Scattered granulations existed over the posterior part of the external surface of the right temporo-sphenoidal lobe, and a softening and discolouration of the grey cortex such as just described. Similar granulations, also, were seen in the sulci, on the under surface of the right temporo-sphenoidal lobe, separating the occipito-temporal gyri. Lateral ventricles large, containing an undue amount of serum, their ependyma somewhat opaque. A small dirty-whitish-yellow nodule embedded in the posterior part of the intraventricular nucleus of the corpus striatum. Slightly roughened, sanded appearance of ependyma of fourth ventricle. Thickening of arachnoid over the pons Varolii. Soft, patchy, thickenings and infiltration of the meninges about the basal aspect of the Sylvian fissures. Right cerebral hemisphere 20 ozs.; left ditto, $20\frac{3}{4}$ ozs.; cerebellum, $6\frac{1}{8}$ ozs.; pons and med. obl., $\frac{7}{8}$ oz.; fluid from cranial cavity $1\frac{1}{2}$ oz.

Left lung: thickly set, clustering, miliary granulations. Beneath the pleura, yellowish cheesy masses. Old pleuritic adhesions. Right lung: somewhat similar changes to those in left lung, but less advanced. Pleura beset with granulations; slight recent pleurisy. Spleen studded through and through with large yellowish nodules; also one such in left kidney. Caseous abdominal glands, especially near pancreas. Old close adhesions of liver, enlarged glands in portal fissure. Weights: Heart, $8\frac{1}{2}$ ozs.; right lung, 26 ozs.; left ditto, 30 ozs.; spleen, $5\frac{1}{2}$ ozs.; kidneys each $4\frac{3}{4}$ ozs.; liver, 45 ozs.

In the following case of basilar meningitis the course was extremely rapid, no tubercles were distinctly made out in the meninges, there were some facts which told for a syphilitic origin, and yet the existence of recent incipient pulmonary tuberculosis around old foci suggested a possible tubercular basis for the meningitis.

R. F. 1st battalion 19th Regiment, admitted April 13th, 1874; died October 9th, 1875, at the stated age of 23, but he looked five or ten years older. Hereditary predisposition to mental disease was believed to exist. He suffered from chronic mania, was incoherent and irrelevant in language, mischievous, destructive, and filthy in person and habits. There were cicatrices of old venereal soft sore, and of bubo, and a simple boss on the third right costal cartilage. Under perchloride of iron the weight increased from 133 lbs. to 150 lbs. in nine months.

October 8th. On rising the left arm was spasmodically jerking, the bowels were loose, the patient did not speak. Shortly afterwards he was unconscious; the pulse-rate varied from 80 to 90, the pulse was compressible, rather quick, but not intermittent or irregular; the cardiac second sound was feeble, the first rather dull and heavy; the pupils were equal, somewhat sluggish, and slightly or moderately dilated; there were convulsive jerking and twitching, especially of the left hand and arm, the former being drawn to the head; the jerking also affected the trunk and lower limbs, but the right arm only slightly, and this limb offered some resistance to passive motion, the other limbs were relaxed; face pale; temperature, right axilla, 104·4°; respiration 40, short and shallow. Ice to elevated head.—K.Br.

12.30, coma; pulse 84, of same characters as above; respiration 39, loud inspiration, slightly laboured; temperature, right axilla 104·9°, left 104·3°; still had jerking movements coming on from moment to moment; frequent flexion movements of left fingers into palm (thumb straight), forearm raised, face or shoulder clawed by hand, left shoulder much jerked, right upper limb generally kept straight, eyes and face very slightly to left, subsultus equally in two lower limbs, slight lateral movements of jaw. 4 p.m., much the same. 8.30 p.m., coma; pulse 120, full, quick, fairly compressible; respiration 54, loud, laboured; moaning expiration, mucous gurgling in throat; pupils medium size and sluggish; no subsultus; right limbs paralysed; head and eyes very slightly to right; bowels open, stools fœtid; has swallowed milk and medicine; skin hot and dryish; temperature right axilla, 106·3°, left 106·2°. Cold water affusion and sheets; a few minutes after this was begun, temp. right axilla, 105·2°, resp. 51, less laboured, mucous oppression less.

12 midnight; pupils and right-limb paralysis as in last note; slight twitching of left arm, which resisted passive motion; temp. right axilla 104·3°, left 103·9°; respiration 44 to 52; continue cold to head, and cold-water sheets at times.

9th. 9.30 a.m., temp. right axilla 101·2°, left 101·4°; pulse 117, compressible; respiration 57, not so laboured as before; pupils as in last notes, eyes opened; slight indications of returning consciousness; right limbs paralysed; face symmetrical; resume bromide.

1 p.m., temp. right axilla 104·2°, left 104·4°; respiration 57; pulse 126, soft; no sweating (none throughout); pupils wider than in a.m., quite sluggish; loud, noisy inspiration, low moaning expiration with slight flapping of lips, nostrils dilated, and the extraordinary muscles of inspiration were in full play; much mucous rattling about throat and chest; dysphagia; dark slightly ammoniacal urine drawn off by catheter; feet cold, purplish mottling of lower limbs. Slight lividity of face and lips. Apply cold to head, sinapisms and hot bottles to feet and legs.

4.40 p.m., temp. 105·6° in each axilla; pulse very feeble, frequent,

soft, small; respiration 45, laboured and loud; pupils wide, especially the left one, and insensitive; right arm more palsied than before.

Finally, respiration became slower and gasping, and still was effected by aid of extraordinary muscles of respiration, both hands, in the act of dying, were raised and fingered the chest. Died 5.25 p.m.

Necropsy, 46 hours after death.

Body well-nourished; extreme rigor mortis; calvaria thin; diplöe congested, sinuses gorged, dura-mater adherent and congested; fluid blood in arteries at base; meningeal veins over cerebrum gorged. Dura mater lining anterior fossæ of skull-base abnormally thickened, and opaque, and very adherent to the bone, whitish and slightly yellowish in hue; dura mater slightly the same in the middle fossæ.

Fibrinous effusion at and about the interpeduncular space, especially on the under surface of the optic commissure and the left optic nerve, some also about the third nerves. Also, symmetrically-placed fibrinous effusion between the pia-mater and visceral arachnoid on the under surface of the lateral hemispheres of the cerebellum; also lymph-patches at the outer angles of the Sylvian fissures. Pia-mater extremely thickened, hyperaemic, red and swollen over the anterior perforated space.

Old, slight, interlobar adhesions. Slight thickening and opacity of arachnoid, even over anterior half of brain-base. Meninges of convexity rather thick and congested, not adherent, and not œdematous. Grey cortex slightly pale anteriorly; white medullary substance of faint lilac hue. Brain generally flabby, softish. Minute blood-clot in white substance of left hemisphere, of cerebrum, 1 inch from upper surface, $1\frac{1}{2}$ inch from posterior tip. Congestive redness of temporo-sphenoidal and occipital lobes at base. Right hemisphere $22\frac{3}{4}$ ozs., left $22\frac{1}{2}$ ozs.; cerebellum $4\frac{3}{4}$ ozs.; pons and med. obl. 1 oz.

It need only be added that the apex of the left lung was adherent, irregularly puckered by cicatricial tissue dipping down to several old calcareous nodules about half inch below the surface. The right apex was also adherent, cicatrized, and puckered, and contained 12 or 14 masses of the size of peas, encapsuled, some only of the consistence of clotted cream, some firm elastic, some of horny or cartilaginoid consistence. Around them were clustered a number of minute, whitish granulations. Posteriorly, were patches of incipient lobular pneumonia. Both lungs were congested and œdematous posteriorly, emphysematous anteriorly, and contained watery secretion in the bronchial tubes. Slight patchy thickening and opacity of capsule of spleen, and adhesions of it to surrounding parts.

Cases of Senile Insanity, with Remarks. By Geo. H. Savage, M.D.

Admitting the difficulties that one has in the classification of insanity, it seems to me, at all events, reasonable that we should recognise classes associated with definite physical

changes. Symptoms may be ever changing and deceptive. A patient may to all appearances be weak-minded, but on recovery it may be found that such patient's apparent abstraction and mental weakness were merely the result of an overbearing and overpowering sense of misery, so that, in fact he was suffering distinctly from melancholia, and the mental faculties were in abeyance through the assertion of other painful sensations. A severe grief or an intense occupation of any kind may make one forgetful of his surroundings, regardless of the state of the weather, the time of day, the condition of one's general health, and so on; and so it is that in many cases of profound melancholy there is an apparent arrest of function. This by the way. We have to consider the fact that at certain periods of life there are certain special tendencies to an intellectual breakdown. Any serious affection of the brain in early childhood so affects the as yet undeveloped structure that it totters readily to its fall, and, once having suffered a severe shock, it is with difficulty restored. In the period of adolescence other functions of the body are developed, and with them many stirring sensations are aroused, which have a great tendency to upset the highly nervous and unstable neurotic patient. As life progresses some people exhibit marked tendencies to die out through their nervous systems. Certain persons develope phthisis late in life; others develop cancer, gout, chronic rheumatism, or other constitutional vices. But the thing that interests me most in this consideration is that there are definite forms of disease seen in patients dying out from exhaustion or wearing out of their nervous tissues. As has so often been said, age is purely relative. A man may be a boy at 70 or an old man at 35. Age, from the physician's side, is a relative advance towards decay and destruction of the most important of the vital tissues and organs. A man may have all his organs slowly degenerating before he has reached middle life, the degeneration being due to some constitutional disease, or to some such condition as atheroma of the vessels. In an asylum one constantly comes across patients who have inherited insanity from their parents, and who have inherited a special form of insanity, and even others who have not inherited any special form, but have inherited the tendency which produced the insanity; thus whereas one person has atheroma of the vessels and dies of apoplexy, another has atheroma of his vessels and dies of aneurism, and another patient has atheroma of his vessels

and angina pectoris, so that the offspring of these patients may have not only the atheroma of the artery, but either the apoplexy, the aneurism, or the angina pectoris, according to whether the parents had the one or the other. I have seen many cases in which a parent has suffered from mental disease only when he has become 60 or 70, and the children have gone on very well until they reached a similar age, and then have broken down under similar circumstances in a very similar way. It would not be right always to say that this has no relationship to mental effects and to predispositions. One knows that suicide, for instance, is not only associated with a family disposition to nervous disease, but is in many cases also associated with a dominant idea which has from early days been before the patient's mind—that suicide has been, as it were, the evil genius of the family; and so the fact that a parent has died of nervous breakdown has been reported to a patient, or has been remembered by him, and when he comes to a like age he necessarily thinks more about the fate of his parent, and this alone, in some temperaments, might be a cause of producing insanity. In some families it is very noteworthy that a certain age is looked upon as being critical, and if that age be satisfactorily passed, the individual may live to a considerable age beyond, but immediately before this crucial period many members have begun with ailments and have certainly worried themselves into their graves. But what I would distinctly assert is that in certain families the tendency is to die of some affection of the nervous system in preference to dying by any other system; and it is interesting to note that in some of these cases the tendency is not always transmitted in exactly the same way, but that the offspring of such parents, if they have not been placed in otherwise favourable circumstances, may break down earlier in life; and although I am not in a position to assert positively that such is the case, many instances have inclined me to the belief that the offspring of those parents who have broken down, say at the climacteric or from advanced age, are more liable than other insane patients to break down at special periods, such as at adolescence and the climacteric. When one comes to consider the changes that we mean by old age, I should say that the mark I have used as the test as to atheromatous condition of the arteries is seen by the tortuous temporal arteries, and the rigid and rather high-tension in the radial pulse. Other symptoms, such as capillary congestion about the cheeks, white hair, and a tendency to leanness,

have, of course, been considered, as well as the condition of the eye called *arcus senilis*. All the patients to whom I shall refer have the above characteristics, as well as years over 60. They suffer either from progressive dementia, with or without paralysis, or from melancholia of one form or another. As we shall see presently, they suffered from hypochondriacal symptoms, or in some cases exhibited maniacal excitement with exaltation, and I shall have to refer specially to at least one case in which these symptoms were so markedly like those of general paralysis of the insane that I was constantly asking myself in what the difference consisted between our typical cases of general paralysis of the insane and cases such as the one under consideration. We were obliged to confess that if the patient had been brought before us, and that blindfold we had been told that his age was 35, we should not have hesitated for a moment in saying that his was a typical case of the disease. General paralysis does occur in old men sometimes as well as in young men, but it is not nearly so common, and when we meet with these cases we are obliged to consider them as a special sub-variety of the disease, or else must look upon them merely as cases of degradation of nerve tissue, having somewhat similar symptoms to the symptoms seen in general paralysis of the insane. I am rather fond of regarding these cases as not truly those of general paralysis, but as examples of progressive nerve degeneration, and I prefer to look upon symptoms of geueral paralysis of the insane as symptoms that are produced solely by a steady and progressive degeneration of the highest nerve centres; and under these circumstances I would expect that any disease which produced steady, progressive degeneration of these highest centres would also produce similar symptoms, just as in the lung, whether it be a tubercle, a mass of smoke, or a piece of steel or stone that sets up irritation, inflammation, degeneration, and a cavity, the course and symptoms of the disease are the same.

In considering some of these senile cases I would lay great stress upon the observation of general physical diseases associated with the mental ones. We have constantly causes of confusion and difficulty. One sees a large number of cases in which an apoplexy is followed by more or less mental weakness, and also a certain number of cases in which atheromatous changes, or perhaps other arterial degenerations, are associated with kidney disease, and with kidney disease there may be marked alteration in mental character. Besides this,

one may have arterial disease, and I have at least once seen aneurism in which the pressure on the pneumo-gastric seemed to have set up enough irritation to cause insanity with delusion as to food; and, again, valvular disease of the heart may also be sufficient to set up mental disturbance. It is generally looked upon as the most natural thing for persons who are worn out, and who are dying by their brains, to become simply weak-minded, and docile, as they enter upon their second childhood. This is undoubtedly true in many cases, but we shall have to notice cases in which every variety of mental trouble may be seen in those cases whose diseases are attributable only to senile decay of the brain.

The first two cases which I shall report are those of senile melancholia.

Case I.—Thomas P. I., admitted June, 1879, aged 69, married. His father was insane, and since this report his son also has been a patient in Bethlem. The cause of his attack was said to be overwork in business. He had been a collector, had been very sober, and this was the first attack of insanity, and had lasted two months before his admission. The first symptoms noticed were delusions. He said that he struck against a lady unintentionally, but he was accused of acting indecently, and expected every moment to be taken up for it. He heard whisperings and people in the house saying, "Take him away." His wife stated that he considered his books were in a complicated state, and for that and other reasons he expected to be arrested. He thought he was ruined. He gradually became more quiet, dull, and unoccupied. He refused his food, because he thought it was drugged. He thought he had committed the unpardonable sin, that he must go to prison, and that he would be put to death. His sleep had been broken, his bowels were constipated, his general health was fair. On admission he was full of delusions of the kind already mentioned, and these varied from time to time, so that at one time he said he was sure he should have to consent to be made naked, and at other times he would wring his hands and mumble that he had been a great sinner. He lost flesh steadily, between July and the following year losing two stone, and 18 months after admission he is described as a wasted, worn old man, who sat crouched, with his head bent forward almost to his knees, his eyes constantly turned to the ground, his hands clasped together, his whole aspect unoccupied, untidy, and wretched. Nothing seemed to arouse him. He had to be fed and dressed, and was perfectly regardless of decency and order, passing his water and fæces wherever he might be. He seemed to have no power to change his position, but remained exactly where he was put from morning to evening. Now he takes little or no notice of his friends, and, when he

does, merely quietly assents to what they say and do. He is still losing flesh, his extremities are cold, the small vessels on his face are marked, his hair is white, the *arcus senilis* is visible; in fact, he is a typical old man, but suffering from a misery that is steadily leading him to his grave, and he will probably become no more weak-minded than at present before being seized with some attack of bronchitis or other disease, which will prove fatal. It may be here mentioned that his son, who was a patient in Bethlem, has been discharged relieved, but not recovered, he suffering from a form of hypochondriacal insanity which rendered him able to live at home, but seemed to have prevented his getting another situation. He had an idea that he had cancer about his throat, and nothing could persuade him to the contrary.

The next case is that of—

Case II.—Lewis P., admitted June, 1880, married, 63. He had been a railway collector, and his son and one brother had been insane. The son recovered, but we have no knowledge of what became of the brother. The cause of his insanity was said to have been business worry, and was reported to have lasted 14 days before admission. He had doubtless been greatly grieved and much worried by the insanity of his son and the attempts at suicide which the son had made. His mental disease began by a feeling of depression, which became worse. He then would lie in bed without speaking or giving any sign of his wants. He looked about him in a strange, bewildered manner, and was suspicious. He would hardly reply to any questions, and resisted any investigation as to his condition. He was taciturn and incoherent, thought at one time he was on the roof of the opposite houses, and was inconsequent generally. From the first his case appeared to be hopeless. His age, his white hairs, and his profound melancholia, with the knowledge that his son had suffered and a brother also, pointed to a strong family tendency, which, coming on at his age, must necessarily have a very unfavourable outlook. A few months after admission he became more dull, refused to speak, and was dirty and careless in his habits. He would sit the whole day long looking in a vacant way before him, neither dressing nor feeding himself, and requiring to be dressed, washed, and tended like a child. His general health seemed to be maintained till January, 1881, when, though he took his food fairly well, his feet became swollen, and we had the greatest difficulty in keeping them raised so as to allow the swelling to subside. His case, like the last one, is one of progressive melancholia, in which the patient, being worn out in body, is nearly worn out in mind, and some physical disease or trouble will make an end of both.

The third case is one of senile dementia and hemiplegia.

Case III.—John S., admitted February 1881, single, 65, an

artist. Nothing known as to his family history. This is the first attack of his insanity, which has lasted three months. There is no known cause for his attack. He has always been more or less self-willed, solitary, and eccentric, so that he often stood in his own way, so far as his profession was concerned, by sticking to his own opinion and declining to alter his work to suit the tastes of his clients. Up to 12 months ago he was thought to be fairly well, and at this time some difficulty in his articulation was noticed, which getting worse, caused him to be treated for paralysis. He became more dull and unoccupied, was unable, in fact, to follow his calling, and too indolent and weak-minded to feel any distress or chagrin at not being able to earn his living. Before admission it was noted that he had become incapable of understanding ordinary things. He was irrational in his answers, would strip himself naked, and sit quite regardless of the fact that women might be present. He was very incoherent and childish in his talk, maudlin and given to tears at times. He forgot more particularly the facts or events that had recently happened, and had a confused and dazed aspect. He was sleepy, and unable to occupy himself continuously at anything, whether amusement or business. His memory for more distant times was good, and his association of ideas was very fairly correct, so that if he were started on the right line of thought he would occasionally, quite automatically, come to the right conclusion. For instance, on asking him about certain engravings, and mentioning the fact that a certain artist had illustrated the book, he at once said, "Yes, with so-and-so," another artist who was associated with the former one in the illustrations. He had never been violent, and the things that were most noteworthy were that he seemed to have lost the idea of shame, that he was unable to take care of himself, that he was likely to get into mischief simply from his bodily and mental weakness. On admission he is spoken of as a well-conditioned old man, with a pleasant, agreeable look, and a very emotional disposition, easily given to tears, rather incoherent in his talk, but fairly cheerful. There was a fulness of capillaries on his cheeks, grizzled grey hair on his head, and *arcus senilis* in his eye. His walk was tottering and unsteady; tendon reflex (patellar) greatly exaggerated, and when this was tried it seemed to irritate and annoy him. He sat by himself, not associating with any of the other patients, and not taking any interest in the games or amusements of the ward. Though his appetite was fair and his general condition fairly satisfactory, he would forget the hours of meals, and would even be uncertain whether he had had a meal within half an hour after taking it. He complained about a good deal of pain in his head, but it seemed doubtful if there was anything more than a dull, uneasy feeling in that part of his body. No great changes were noticed within the first few weeks after his admission, but early one morning in April he had a slight fit affecting the right side, which left him somewhat weaker on his feet and

distinctly weaker in his mind. The prospect is that he will slowly lose both mental and bodily power, that there may be a recurrence of these fits, or, more probably, that he will become bedridden, and from bed-sores or bronchitis sink, and that on *post-mortem* we shall find a wasted brain, atheromatous arteries, and one or more local softenings.

The next case of senile insanity is probably one of general paralysis of the insane.

Case IV.—Richard James W., admitted March, 1881, married, 64, architect by profession. His son suffered from melancholia. This is the first attack of insanity, and is said to have come on three months before admission, and to have been caused by anxiety about business matters. The first recorded symptoms are exaltation of manner, considerable excitement, rapid conversation, wandering from one subject to another, willingness to unfold the whole of his family history to anyone who would listen; garrulity generally. He had delusions of grandeur and importance, spoke of having purchased three separate properties in the neighbourhood worth several thousand pounds each, and said that he was about to engage a butler and other servants. He sat up all one night writing his autobiography, and on one occasion he rose at 5 a.m. and went to clear up the kitchen and wash some oilcloths, a thing quite foreign to his usual habits. He thought he was going to be Lord Chancellor and Chancellor of the Exchequer. When admitted he had similar ideas, talked constantly about his wealth and his general good position, and the state of his affairs. He was a short, spare, elderly man, with curvature of the spine, and over the whole of his body, on admission, was *prurigo senilis*, which caused him a certain amount of trouble and uneasiness, but not as much as might have been expected from the amount and extent of the eruption. In his expression he was happy and contented. He said he was worth any amount of money, and, like most paralytics, was willing to give to each and all as much as they liked, and to play the part of any character whose name might be suggested, so that he would be a Lord Chancellor at one moment, Chancellor of the Exchequer at another, a commander of a regiment at a third, or simply a Lord Mayor and great entertainer at a fourth. He took his food well, slept well, and was contented with all his surroundings. He had hallucinations of hearing, and, one would say also, of sight, for if one asked him for money he would for a moment turn on one side and say, "Oh, yes, I have told my clerks to get it all ready for you," and when further pressed he would say his clerks had it all right "down there." This condition of exaltation, without any paralysis or congestive seizures, has now gone on for a good many months, in my own opinion he is more likely to be for a time depressed, and then weak-minded, than to run through any course at all like general paralysis of the insane as seen in younger patients.

It must not be supposed that all cases over 60 are incurable, for I have seen, as have doubtless nearly all asylum superintendents, cases of recovery after 60, 70, and even 80 years of age. My feeling, however, is that if a patient breaks down for the first time without nervous inheritance at or over 60, the chances of his recovery are small indeed.

The next case is one in which complete and, so far, permanent recovery occurred in a patient over 60 years of age.

Case V.—Joseph W. was admitted in March, 1880, aged 60. He was married; his brother had been insane before him, and there was no known cause for his insanity unless it was the leaving a situation that he had occupied for 26 years. The first symptoms noticed were physical and mental depression, which became worse, so that he would sit wringing his hands continually, saying, "I have done wrong, I have done very wrong; I feel I have done very wrong. I have neglected prayer, and I have neglected my happiness; I have injured wife and family." He said that he had been a thief all his life, and that his house ought to be searched. He had to be prevented from giving himself up to the magistrates. He thought that he had committed many unlawful acts, and was generally desponding. There was loss of memory, and rambling and incoherence in his talk. He attempted to cut his throat, and tried to swallow a solution of cyanide of potassium. On admission he had delusions that he was being followed, and that there were six policemen ready to take him, that his ruin was impending, and that he was eternally lost. He was a well-built man, rather above the average height, had grey hair, and a serious, melancholic expression. He was restless and feeble, and spoke slowly. He was suicidal, and could not be trusted. For nearly the whole of the time that he was in Bethlem he suffered from ideas that his body and soul were both wrong, and he was very persistent in his belief that his bowels were obstructed, and, if left to himself, would have taken purges daily. He was tried with morphia, but with little apparent good. Glycerine was given him in two-drachm doses before his food, and afterwards large doses of bromide of potassium, but I am afraid that I cannot attribute his improvement in any way to the drugs that he took. By careful feeding and insisting on his taking regular exercise he improved in general health, and was able to be treated at home, and during the latter part of the time that he was on the books of the hospital he became stronger in mind, lost his delusions, was less emotional, and was discharged well enough to perform his ordinary work.

Senile Melancholia.

Case VI.—Robert H. R., admitted July, 1880, single, 68. His father was insane; two sisters were insane, and another was weak-

minded. This is his first attack of insanity, and lasted six weeks before his admission. It was said to be due to heavy losses through speculating. The patient was said to be suicidal, and dangerous. He refused his food, and had to be forced to go to bed. He thought that he was ruined, and that he owed money where he did not; that he had no clothes on when he was properly dressed. He wandered about at night, and thought people were waiting to kill himself and his sister. He was in a state of melancholic depression and despair. He repeated the same story, that had been contradicted and refuted, over and over again. He thought that he was stuffed with food when he had taken hardly any. On admission he thought there was a design and plot to murder him and his sister. He was under the impression that he owed a lot of money and could not pay it, and in consequence he refused all food. The patient was a tall, thin man, with the capillaries in his cheeks well marked. He was suffering from melancholia; thought that he was choked up with food, and that his bowels never acted. In this condition he remained, and, in my opinion, will remain, as long as he lives. As long as he is fed, tended, dressed, and looked after he lives on in a quiet, fairly orderly way, because he finds himself too weak to resist, but beyond that there will be no change, and, I believe, no improvement.

Case VII.—Samuel P., admitted February, 1881, widower, 64. No insane relations, but his mother died of paralysis. This was the first attack of insanity, and had lasted three weeks. It was said to have been produced by money losses, which occurred during the last two or three years, the last occurring about two months ago, after which the mental symptoms became more marked. The earliest symptoms were taciturnity, melancholia, sleeplessness, and slowness of speech. These gradually and steadily became worse; he became unconscious of his own identity and place of abode. There was incoherency about his ideas, and complete inability to recollect the simplest facts of recent occurrence. At times he would walk the room at night, and in the morning say that he had been in bed all the time. He was taken up by the police as wandering without being able to give a reason why. He was restless, and generally weak. He refused food, and was very obstinate in some things. He wandered or tried to get away from home, thinking that was not where he lived. He heard voices, and people sawing the floor in the house next to his own, and thought people were coming into his room to him. On admission he was reported as a man of short stature, thin, and worn-looking, hair and beard white; seemed lost. Was up, though feeble and weak. He was constantly and restlessly moving about, and answered questions slowly and deliberately. His speech was jerky, and his tongue and lips were tremulous during speech; his tongue, on protrusion, too, was very tremulous. The pupils were contracted, but equal. The gait was fairly steady; there was no ataxy. He said that he was quite well, and he thought he

had been followed about before he came in. There was marked loss of memory, and although he had been in the hospital only two days, he said that he had been here for seven weeks. He walked with the left side of his body lower than the right. There was undoubtedly paralysis of this side. He was emotional, and memory was deficient. So far there has been little or no gain, and in his case, as in the other cases of melancholia, one would look for steady, degenerative progress.

Case of General Paralysis in a Young Woman, Commencing at the Age of Fifteen. By Joseph Wiglesworth, M.D. Lond. Assistant Medical Officer, Rainhill Asylum.

I am indebted to Dr. Rogers for permission to publish the notes of the following case:—

Elizabeth D., æt. 21, single. Admitted into Rainhill Asylum November 18th, 1881.

History.—Father living; mother died, æt. 43, of bronchitis; mother had six children born alive, and one miscarriage; four of these died young, two living (including patient); a brother was consumptive. No insanity or epilepsy in family. Father admits to having drunk a good deal in his younger days; he has been married a second time about nine years, and patient has been neglected a good deal by her step-mother, and does not appear always to have had a sufficient amount of food; she is said not to have menstruated, or but very slightly so. When about two years old she fell down stairs, and ever since then has had a running from her ear. Father never noticed any obtuseness in patient when a child, but his neighbours told him that they observed she was always rather dull. She was, however, sent to school, and learned to read and write; was fond of singing hymns and going to church. She always lived at home, and assisted in the household duties. When patient was fifteen years of age, father noticed that her memory was failing, and she was also observed to be weak on her legs—often fell down in the street. She got gradually childish, and was very slow at doing anything—at dressing herself, for instance, would often let things fall, and break them; was always very quiet, speaking very little; though gradually getting more and more dull she did little odd jobs in her father's house up to three or four months ago. Three weeks before admission was found one morning speechless, though she was able to mumble something unintelligible, and was unable to raise her left arm up; the next day she vomited her food, and this vomiting was repeated during several days (she had never vomited before); in two or three days she recovered her speech, and also power over her left arm, but was decidedly more dull mentally, paying no attention to what was said to her, in which state she continued till she was sent to the workhouse (a few days before admission). Was never known to have any convulsions. She

had been dirty in her habits occasionally as long ago as two years, but latterly had got worse in this respect.

State on Admission.—A small, badly-developed girl, poorly nourished, weight 104 lbs., expression decidedly fatuous, light-brown hair, brown irides, pupils dilated, right decidedly the most so, scarcely any appreciable action either to light or to accommodation, right conjunctiva a little injected, left decidedly so, with a little puriform secretion at angles of lids. Optic discs normal. Right eye = — 15 D. Left = — 18 D. No staphylomata. Tongue generally protruded straight, but sometimes with a slight deflection to right, rolled about at times, markedly tremulous, both as a whole and fibrillar. Distinct tremor of lips whilst speaking, chiefly of upper lip. Speech very hesitating and stuttering. Can give a firmer squeeze with left hand than right. Sways a little from side to side whilst walking, and feet are sometimes placed far apart, and brought down clumsily, but there is no distinct ataxy; is very shaky when feet are placed together even with eyes open—worse when these are shut. Knee jerk completely absent on each side. Plantar reflex active. *Lungs.*—Respiratory sounds generally feeble, but otherwise normal. *Heart.*—Normal. Tongue moist and clean. *Urine.*—Clear, acid; sp. gr. 1015; no albumen, no sugar.

Her mental condition was pretty uniform for the first five weeks after admission. She sat still most of the day with her head bent a little forward, not attempting to move spontaneously, and did not speak unless addressed; she, however, answered simple questions rationally, gave her name and former residence correctly, but said her age was 16; stated also accurately one or two particulars in her family history, repeated the days of the week correctly, and the months of the year almost so. Memory was, however, much impaired—said the day after her admission that she had been in the asylum two weeks.

She slept well, and had a good appetite. On December 27th she was noticed to be duller than usual, and there appearing to be general loss of power she was put to bed. T. 99·8°, P. 106.—28th, T. 98°, P. 80. Plantar reflex active. Knee jerk absent. Very dull mentally. Cannot be got to give her name, or even to protrude her tongue. —29th, Temporary conjugate deviation of eyes to right. Pays no attention to questions. Urine and fæces passed in bed.—Jan. 1st, '82, Lying with mouth half-open, tongue rolled about on floor of mouth, eyeballs moved restlessly about, both pupils dilated, right the most so; T. 100°, P. 112, small and weak. R. 40, somewhat shallow and irregular. Tremor of hands when moved. Has not spoken at all, and takes not the slightest notice of anything said to her; has several times made a peculiar noise compared by the nurse to the bark of a dog; twice this evening had seizures which, according to the report of the nurse, were of a tetanic nature, her head and neck getting very stiff, her neck being somewhat arched backwards, and her

arms and hands also becoming very rigid; each attack lasted from four to five minutes.—2nd, Rolling her head at intervals from side to side. T. 100·6, P. 120.—7th, In much the same condition, lying quiet and taking no notice of questions. No convulsions of any kind. A slough has formed at upper part of right buttock, close to fold. —16th, Decidedly brighter, and can now answer simple questions rationally.—25th, Bedsore above noted has increased in size, and a small one has formed over crest of right ilium.—Feb. 3rd, Has deteriorated again mentally, rarely speaks, and cannot be got to reply to questions; expression very fatuous, is restless, fidgeting with the bedclothes, pulling out her hair, &c. Arms tremble very much on movement. The sores above mentioned have increased in size, and others have formed.—11th, Has got much more feeble last few days. Takes no notice of anything going on around her.—16th, Temperature has been febrile last eight days, ranging from 100° to 101·2°. The bedsores have much increased in size, and abrasions have appeared about feet, ankles, and other parts of lower extremities. Is rapidly sinking.—18th, 10.5 a.m., died.

Autopsy.—1.30 p.m. ($3\frac{1}{2}$ hours after death).

Cranium.—Calvaria normal; dura mater moderately adherent, a little black and partially decolourised clot in posterior two-thirds of longitudinal sinus, soft black clot in lateral sinuses; here and there attached to inner surface of dura-mater, a delicate reddish film, easily detached, and not forming a coherent lamina; $5\frac{1}{2}$ oz. of fluid were collected from subdural space; arachnoid everywhere very opaque, it and pia mater considerably thickened, hemispheres firmly adherent both in anterior part of median fissure, and in front of genu of corpus callosum for about an inch; firm membrane also spanning Sylvian fissure; all these parts could, however, be separated without tearing the brain; pia mater strips fairly well, and, though obviously abnormally adherent in some parts, without much decortication; this, however, distinctly occurs (in right hemisphere) about centre of middle temporo-sphenoidal gyrus, anterior part of angular gyrus, posterior part of supra-marginal gyrus, and in one or two places along gyrus fornicatus; in left hemisphere (which was not stripped till following day, though kept moist—having been reserved for microscopical examination) much more extensive decortication occurred, viz., at posterior part of first frontal gyrus, lower ends of anterior and posterior central gyri, anterior part of supra-marginal gyrus, angular gyrus, and scattered patches over posterior two-thirds of middle and inferior temporo-sphenoidal gyri. Large excess of subarachnoid fluid. Gyri everywhere greatly wasted. Cortex everywhere dark and much atrophied, especially in frontal region; striæ very indistinct. Grey matter of corpora striata dark, but basal ganglia appear otherwise normal. Ventricles widely dilated—4 oz. fluid collected from them; ependyma of fourth ventricle markedly granular. Brain generally of firm consistence, that of upper part of

medulla increased. Pons, wasted. Cerebellum, pretty firm. Weight of brain (immediately after removal), 915 grammes.

Right Hemisphere	..	332	grms. (stripped, 305 grms.)
Left „	...	333	„
Cerebellum	...	123	„
Pons	...	11·5	„
Medulla Oblongata	...	6·5	„
		805·10	

Microscopical Examination.—Sections were obtained in the fresh condition from the following gyri :—Sup. Front. Rectus, Angular, Ant. Cent., and from the Cuneus ; they all showed distinct, though moderate, increase of the neuroglia, with atrophy of nerve cells.

Spinal Cord.—Considerable excess of subdural fluid. Arachnoid generally moderately thickened and opaque. Weight of cord, 26 grammes. Cervical region somewhat flattened antero-posteriorly. Consistence about normal. Minute spots of reddish softening situated here and there in grey matter of dorsal and upper lumbar regions, occupying posterior part of anterior horn, on right side in dorsal, and left side in lumbar region.

Microscopical Examination.—Sections obtained from dorsal and lumbar regions after hardening in Bichromate of ammonia, showed the nerve cells of the anterior horns to be perfectly normal. There was, perhaps, some increase of the neuroglia element.

The Thoracic and Abdominal Viscera presented nothing especially noteworthy.

Remarks.—The interest of this case of course centres in the unusually early age at which the disease commenced; this, though stated at 15 years, was probably even earlier, since the first symptoms noted, viz., loss of memory, and motor weakness, pointed to the probability of the disease having already been in progress for some time. I am not aware of any case having been published in which the affection began so soon in life in one of the female sex; but in the "Journal of Mental Science" for October, 1877, a case will be found recorded by Dr. Clouston occurring in a boy æt. 16, and in the same Journal for October, 1881, Dr. Turnbull reports a case, commencing at the still earlier age of 12—also in a boy. It seems worthy of note with respect to these three cases occurring in early life (1) That in none of them was there any grandiose Mania, nor indeed any stage of excitement whatever, but the mental characteristics were those of slow progressive Dementia. (2) The motor symptoms so typical of General Paralysis were very well marked. (3) In two of the cases at least the course of the disease was unusually prolonged.

Two Cases of Rapid Death with Maniacal Symptoms. By Geo. H. Savage, M.D.

The two cases can only be linked on account of the rapidly fatal issue associated with actively violent mania. The first was a case of acute general paralysis, and the second of mania due to injury to the head.

Samuel B., aged 45, married. No insane inheritance; of temperate habits; supposed cause, overwork.

The first symptoms were excitement and extravagance which appeared suddenly on Feb. 11th. He was admitted 11 days later.

On admission he was talkative, boastful, emotional, destructive, and violent. He was extravagant in the wildest way. Pupils irregular. Tongue tremulous. Handwriting shaky. Reflexes normal.

He had had syphilis in youth, but there were no signs of constitutional disease.

The violence continued day and night, and he was dry packed on several occasions. Nothing quieted him, and he appeared to get weaker, but no serious symptoms appeared till April 4, when he suddenly became quiet, and was dead in half-an-hour.

Post-mortem.—Dura-mater adherent to calvarium. No excess of fluid; the membranes peeled freely, save in one spot on left parietal lobe, and over left first frontal the cortex was left rough.

Both lungs were intensely congested.

There was early atheroma in origin of the aorta.

So in this case we had death from exhaustion in the earliest stage of general paralysis. The microscopic examination has not yet been made.

S. S., aged 27, single. Admitted April 7, 1883. Some insanity in the family. Teetotal and industrious.

Three months before admission he had a severe injury to his head from a fall from his horse. He was stunned but soon recovered, but from this time was not the same as before. His friends said he became careless and indifferent, not taking the same interest in his work, being lazy and sleepy.

He suddenly became excited and violent, attacking his attendants, and talked incessantly and incoherently.

He ran out of the house in a semi-nude state.

Soon after admission he passed an ascaris, and was better for a day. Tongue was dry and furred, and he refused food. Some scattered papules occurred over his body.

Temp. 96·8. Stimulants and fluid food were given constantly, but he continued excited and died on April 17, 1883.

Post-mortem.—No signs of the injury were visible. There was

excess of fluid, and the anterior lobes were mutually adherent along the first third of the longitudinal fissure.

There were gangrenous patches on several toes.

Other organs healthy.

So in this case the patient died of acute mania following an injury, and I believe due to it; and the only post-mortem sign was cohesion of the frontal lobes. If the case was due to a variety of cerebritis, it is of great interest, and must be added as one more case in which we see the mortal nature of a comparatively slight but sudden change in the brain in a healthy man.

Symmetrical Tumours at Base of Brain. By Dr. Strahan, Assistant Medical Officer, Northampton Asylum, Berrywood. *(With Illustration.)* *

T. P., an unmarried man, 28 years of age, was admitted a patient of this asylum in October, 1880, suffering from a first attack of insanity.

On admission he was said to be suicidal, dangerous, and frequently violent. The history received was: "He had served as a soldier several years in India: was of intemperate habits: had attempted suicide by strangulation: had refused food and had been frequently dirty. He had been noticed 'strange' for about a month past."

The medical certificate on which he was admitted was as follows:—"He is incoherent—much excited in his appearance and behaviour—has a delusion that someone put a knife in his way that he might injure himself; also that Jesus Christ was sent on earth to destroy him."

After the medical examination on admission the following note was made:—

"The attack appears to have come on slowly, and delusions been gradually developed. He has a vacant expression, and his manner is lost and confused. Continually asking questions, but does not in the least understand what is said to him in reply. There is almost incessant incoherent muttering, and he seems to be talking to imaginary beings and looking for someone about the room."

The paralysis must have been very slight, if at all perceptible at this time, as there is no mention of such symptoms.

On the day following admission this note is made:—

"He runs against tables, &c., and evidently cannot see much."

The history of his case as recorded, gives little to note, except that he gradually became completely blind, and that a year after his eyes were examined by a specialist, who made the following note in the Case Book:—"Has atrophy of both optic nerves."

* General asymmetry of brain is merely due to pressure, &c., *post mortem*.

Shortly after this time he came under my notice, when I found him totally blind, very restless, frequently noisy, having many delusions, and walking with a slightly rolling gait, the legs being separated to some extent. At this time, and, in fact, up till three days before his death, he could find his way about the ward so carefully that he seldom or never stumbled, and always found his way back to his own particular seat. He fed himself at meals, and attended to the calls of nature. The only paralyses were blindness, deafness, the rolling gait, and a slight want of co-ordination in the movements of the hands. He had always been deaf, requiring to be spoken loudly to, but his hearing gradually got worse, and he became totally deaf some months before his death.

On 27th August, 1882, having been in his usual condition up till that time, he was found by the night attendant in an unconscious state, with froth about the mouth, as though he had had a fit. The pupils were equally dilated, breathing stertorous, face congested ; he was unable to swallow. He remained in this state until the evening of the 29th, about sixty hours after the appearance of coma, when the coma deepened and he died.

The patient's mother was averse to any examination of the body, saying, "she knew exactly what was the matter, as two others of her children had died in almost the same way, and that the doctor had told her it was 'pressure on the brain.'" This statement led to inquiry into the family history, when the following was elicited :—

"She had had eight children by deceased's father (her first husband) of which T. P., our patient, was the last surviving, and eldest. The first child, a female, died, aged $4\frac{1}{2}$ months, of consumption. The second, a male, died, aged seven months, of measles. The third and fourth were still-born. The fifth, a female, lived to the age of 20 years. She was deaf, had been treated for St. Vitus's dance at Guy's Hospital. She afterwards became insane, and died in an asylum after nine months' residence ; certified cause of death, 'Chronic disease of the brain.' The sixth, a male, had the left eye removed for some affection when 18 years old, after which operation he became deaf. He lived until 29 years of age, when he lost the sight of the other eye, and died some six weeks later, 'after a severe fit.' The seventh, a male, lived to the age of 30 without any marked sign of disease, when he 'dropped down dead.' An inquest was held, and the jury brought in the strange verdict (according to the mother) of death 'from diseased heart and visitation of God.' The eighth child was our patient, T. P., who had been somewhat deaf since he was 10 years old, but not sufficiently dull of hearing to prevent his reception into the army."

On cross-examination, this woman stated that after the birth of her first child her hair came out, that "she had a sore throat and lost her voice some two years later ;" while she became permanently deaf of the left ear at some time subsequently, the date of which occurrence she could not fix.

The father of her children, she said, died aged 45, of "asthma and fistula," the doctors telling her that they would not cut the fistula as he would die in any case. She further stated that he, her husband, was "quite insane for two days before his death."

This woman has been married again, and has another large family. Some of these children are over 20 years of age, and they are, she says, "all quite healthy, and have never had any fits nor any sickness of any kind to speak of."

It will, I think, be generally admitted that this history points directly to syphilis in the father. The first child died at 4½ months, of consumption. This was in all probability the marasmus so often seen in syphilitic children. The third and fourth being still-born points strongly in the same direction, while the mother's illness, as given above, can hardly be referred to anything else.

No post-mortem examination was allowed, but the patient's symptoms and his family history being so interesting, I became possessed of the brain on the 31st August, and soon after handed it to Dr. G. H. Savage, who has made the following note:—

On each side of the medulla oblongata, lying against the under surface of the cerebellum, is an irregularly rounded and nodulated growth, firm and hard to the touch, about the size of a large walnut. That on the left side is rather the larger.

Each tumour has caused depression of the under surface of the cerebellum above it, of the posterior border of the pons varolii in front of it, and of the medulla at its inner side. The growths have no attachment to the cerebellum or pons or medulla, and are loosely connected with the membranes about them—lying outside the visceral layer of the arachnoid. Histologically, these growths are of fibro-cellular character.—(*See Lithograph.*)

OCCASIONAL NOTES OF THE QUARTER.

The Beer Dietary in Asylums.

There can be no doubt that there is a growing feeling on the part of the Medical Superintendents of our large asylums to take into consideration the question whether on the whole the discontinuance of beer as a beverage is not a moral as well as a financial advantage, and it is worth recording in this Journal that at the present time, to our knowledge, there are seven and twenty pauper asylums in England in which the Committees, with the approval of the Superintendents, have discontinued the use of beer as an article of ordinary diet. The question, we need hardly say, is a practical one, and has nothing whatever to do with "teetotalism;" the



From a Photograph

Mintern Bros. imp

TO ILLUSTRATE DR STRAHAN'S PAPER
ON SYMMETRICAL TUMOURS AT BASE OF BRAIN.

course pursued should be determined by what is found to be best for all concerned, and if beer at meals is useless—if it can be shown that the health of the asylum population does not suffer from its removal—and if, as alleged, there is a moral gain not only among patients but attendants, then we must acknowledge that common-sense and humanity would alike sanction its discontinuance. For the Medical Superintendent, the health of the patients and the good order of the household are the primary considerations; we must not allow the idea of saving money to interfere for a moment with these objects. If, however, on these grounds we can recommend this dietetic change, the saving to the ratepayers is not a small matter. They are always entitled to consideration, but more especially are they so at the present day. The Cumberland and Westmorland Asylum was, we believe, the first to make the experiment, at its opening, under the superintendency of Dr. Clouston, and the present Superintendent, Dr. J. A. Campbell,* regards it with great favour as an unquestionable success. When visiting the Lenzie Asylum, last autumn, we enquired of Dr. Rutherford what plan he adopted, and were informed that he did not give his patients stimulants, although so many are employed in out-of-door work. In December last, the Visiting Justices of the Devon County Asylum decided that at the commencement of 1883 the daily supply of beer should be entirely discontinued, and that in future neither it nor spirits should be allowed unless ordered by the medical staff. On going round the Derby County Asylum in October of last year, we found the energetic Superintendent of that institution had gradually diminished the use of beer, and contemplated its entire discontinuance. This course has now been adopted, and Dr. Lindsay is sanguine as to its satisfactory working. We transcribe the remarks made by him in his last Report:—"In a few years it will probably be found that in the majority of English pauper asylums, beer will not be given as an article of ordinary diet; the minority at present giving no beer will soon, I believe, be converted into a majority. I am of opinion—an opinion, I believe, shared by many Asylum Medical Superintendents—that the small allowance (half-a-pint) of asylum beer of the quality

* Dr. Campbell writes:—"I use really good liquor for those who need it, and give it when I think it useful. I have always thought it foolish to give dements, criminals and imbeciles, beer as an article of diet. If you do give it call it by its proper name, a luxury." (May 23, 1883.)

(about 6d. per gallon) given to patients, contains so little nutritive or stimulant property as not to be entitled to serious consideration from a strictly medical point of view. It cannot now-a-days be maintained that beer is necessary for the purposes of health, nor can it be shown that beer has formed part of the daily diet of most of the Derbyshire patients prior to admission to the asylum, for, as far as my enquiries have gone, it would appear that the large majority of patients, especially females, had not been accustomed to the daily use of beer prior to admission. The most, therefore, that can be said in its favour is that it may be an agreeable and so far wholesome beverage (certainly better than bad or tainted drinking water), but a luxury that may be done without. To my mind the chief objections against its use are of a domestic and disciplinary nature connected with the working of the establishment. It is frequently wasted altogether, given away to or taken by other patients of gluttonous and intemperate habits, who thus get more than their allowance, and it is often the source of loss of time and of diverse troubles from misuse and quarrelling. In short, the supposed advantages from its use are not proportionate to its cost, and are more than counterbalanced by the disadvantages attending its use and misuse. I am not disposed to attach undue importance to the question of the use of beer from a temperance point of view, although I believe every Asylum Medical Officer of experience must admit that even from this standpoint something can be said against its use; for it is a practical and important point to bear in mind that its abuse must also be considered, the excessive use of even light beer being attended with disadvantages, whilst its daily though moderate use no doubt tends to keep up and encourage the drink-craving in those of intemperate habits—the rock on which many have been wrecked prior to their reception into the asylum, intemperance having been in a considerable proportion of cases a partial factor, at least, in the causation of their insanity. The financial or economic aspect of the question, although of secondary importance to the health, welfare, and interests of the patients, is also worthy of consideration. In carrying out the new arrangement of the entire disuse of beer, I was prepared to encounter some difficulties, but in reality I have met with none, and it appears to work very smoothly and satisfactorily; in fact, better than I had anticipated at so early a stage, for I never had any doubt of its ultimate

success. In accordance with a growing conviction entertained by the Medical Officers, the use of stimulants in the treatment of disease and of the sick in this asylum has been greatly diminished for the last year or two, more reliance being now placed on milk, arrowroot, beef-tea, and other nutritious articles of food. The amount of stimulants has now, I think, been reduced to a minimum. On 31st December there were no stimulants (beer, wine, or spirits) on the sick diet lists for female patients, and for male patients the quantity on sick diet lists was very moderate, viz., four ounces port, four ounces brandy, and two ounces gin. On the same day, at the morning visit of the Medical Officer, there were no female patients confined to bed, and in the male division six patients were in bed, which shows the favourable state of the general health of the inmates at that time."

At the Wakefield Asylum the experiment began by beer being given to men only. Recently, however, we find that a clean sweep of the beer has been made throughout the establishment. In his last Report Dr. Major says that water has been substituted. It is too soon to express a definite opinion on the experiment, but Dr. Major observes that "so far I have reason to feel satisfied with the change, which on my recommendation you authorised, and its introduction has been unattended with any practical difficulty whatever." Beer has not been included in the dietary of the new asylum for the Borough of Birmingham, near Bromsgrave; and the Committee of the Oxfordshire Asylum has the question under consideration. Dr. Pringle, in his Report of the Glamorgan County Asylum for 1881, stated that beer was never given as a regular allowance to patients, but as a reward for work to those who so earned it. Milk was substituted, and among the attendants the females accepted a money equivalent, and the males a uniform. Dr. Pringle observed, "several of the more intelligent patients acknowledge the change with gratitude, and seemed pleased that what had in many cases proved their ruin should no longer tempt them here, and keep up the craving which, on regaining their liberty, they would be apt to indulge. In raising the tone and discipline of the servants, generally, I believe much good will result." A year later Dr. Pringle wrote in his Report, "The conduct of the attendants and servants has been on the whole excellent, and another year's experience of the abolition of beer as an article of diet for their daily use has strongly

confirmed the view I formerly expressed as to the improved tone and discipline likely to result. Nor have the patients been in any way injuriously affected by the change made in their dietary by the substitution of milk for beer to the workers." That the change must have been very great to some on admission, is indicated by the fact that several acknowledged that they had been in the habit of drinking daily fifteen or sixteen pints of beer, which was confirmed by their friends. It is due to Dr. Pringle to add that he regards alcohol as most useful as a medicine, and that he gives it to the sick or the feeble as liberally as in an ordinary hospital. A reference to the Reports of the Kent Asylum, Barming Heath, shows that in 1878, Dr. Pritchard Davies allowed less beer in the dietary, with the result that in his opinion "the patients certainly benefit by the alteration." In the Report for 1879, it is stated that the experiment has been found to work so well of only issuing beer to workers, that on Dr. Davies's recommendation, beer had ceased to be an article of ordinary diet from December 1st, 1879, being only issued from the surgery as a "medical extra." Money was allowed to the attendants and servants in lieu thereof. No extra diet was given to the patients. The change had fully realized the Superintendent's expectations. In the next year's Report Dr. Davies says, "I do not think any unprejudiced observer could question the good results which have followed the total abolition of beer as an article of ordinary diet. The wards are much quieter than they have ever been before, the patients are cheerful without being noisy, and they certainly work better. Their general health has been good, and there is a marked diminution in our death rate, to which, however, I do not attribute much importance, as it may be explained in other ways. However, for the improved condition of the patients generally—the diminution of violence, destructiveness, and noise, I think the abolition of the issue of beer is mainly to be credited." Dr. Davies says, "although the abolition of beer as an article of ordinary diet has been the means of saving a large sum of money, I wish to state that it was not with this object that I advised the step you have sanctioned. From careful observation of the effects of alcoholic stimulants upon the patients under my care, as well as from a knowledge of the cause of a large number of them being here, I became convinced that it was

not advisable to continue to supply exciting beverages to them, which I felt sure had a tendency to prolong their malady, and by keeping up a taste for intoxicants in those inclined to over indulgence in them, directly conduce to a speedy relapse after they were discharged." In the Report for 1882, Dr. Davies says that not a single patient has objected to work in consequence of the change, and that the general health has not suffered. Milk is not substituted. Writing May 16, 1883, Dr. Davies says, "I cannot express my satisfaction at the result of the change in language too strong."

Dr. Cassidy, in his Report of the Lancaster Asylum for 1881, states that he has abolished the use of beer as an article of diet, and adds that he never took any step which he afterwards saw less reason to regret. At the Monmouth Asylum Dr. McCullough has discontinued beer entirely as an article of diet. The dietary of the working patients has been improved, and the attendants and servants receive a money allowance. He reports favourably as to the effect of the change. We observe that Dr. Wade, the lately appointed Superintendent at the Somerset Asylum, says in his annual Report, "The experiment initiated by my predecessor of abolishing beer as an article of ordinary diet has continued and worked well. I should not recommend any return to the alcoholic beverage, nor should I propose any more nutritious substitute for the beer than that already given, as I consider the nutritive qualities of the ordinary asylum beer to be almost *nil,* while your ordinary dietary is at present most liberal, and amply sufficient for all ordinary requirements of the patients."

We shall watch with interest the movement which has thus made so considerable a progress, and whatever may be the final verdict, we consider that those who are making the experiment ought to be encouraged to give it a fair trial. If on the other hand there are any who have tried the experiment and found it in any way injurious, we should be glad to be in possession of their views.

The Monasterio Case.

Although it is certainly no part of our duty to discuss the charges brought against lunacy doctors abroad, while, indeed, we think that as a general rule it is in much better taste to mind our own business, there is the legitimate

motive which the discussion of such charges permits, of endeavouring to learn the lesson taught by the failure, if such it be, of laws enacted for the custody of the insane, and thereby seeking to ascertain whether there is any corresponding defect or source of danger in the legislative enactments of our own country. It also behoves the critic of foreign institutions, or of the scandals alleged to occur in other countries, to remember that he may easily fall into the error of forming an erroneous opinion or a harsh judgment from an insufficient acquaintance with all the circumstances of the case.

John Bull is disposed to be not a little Quixotic, and to engage in attacks upon the doings and misfortunes of his neighbours when he would be much better employed in setting his own house in order. But a Journal like ours can hardly pass over in silence an event which has caused so much excitement at home and abroad, and been discussed in all the newspapers.

The facts of the Monasterio affair are as follows :—

Much cannot, it seems, be said that is favourable to the general character of the Monasterio family and its belongings. There is also, we believe, a large leaven of madness among its members.

The allegation made is that a lady, Madame de Monasterio, the widow of a Chilian merchant, and her natural son, Carlos Lafit, wrongfully placed the daughter Fidelia in Dr. Gonjon's *Maison de Santé* in Paris—the object being to prevent her marriage and participate in her property. Seven years ago she was a patient in the asylum at Charenton, having become insane, so it is said, through harsh treatment. She recovered, was again placed in the same institution, and again recovered. On returning home, she was so unkindly treated, it is asserted, that she escaped to the house of Madame Chalenton, a former maid in the family. It was sought to place her once again in confinement, and a doctor was induced to sign a certificate of her insanity, which was endorsed by another physician, upon which she was conveyed to the above-named private asylum. In consequence of the representations of Madame Chalenton, the case was taken in hand by the police, and Fidelia was removed by Carlos Lafit within ten days, and was brought to England. Madame de Monasterio and those who conspired with her to deprive Fidelia of her liberty were summoned before the Correctional Court; but on the ground

that it had no jurisdiction, they were discharged, and the Court of Assize was stated to be the proper quarter in which the case should be tried.

It should be added that when Dr. Ollivier, the physician of the Prefecture of Police, visited Dr. Gonjon's asylum within three days of Fidelia's admission, as the law directs, he examined her, and did not see any reason for ordering her discharge.

It appears clear that whether the action taken by the several members of the family in reference to Fidelia was actually criminal or not, it was unscrupulous. On the other hand, it would appear to be indisputable that Fidelia had had several attacks of insanity, and that she was weak-minded when last placed in an asylum—so weak-minded, in fact, that her best friends, if she had any, might justly have preferred her being in a well-conducted asylum to living in the wretched *menage* of Madame de Monasterio. It cannot, however, be denied that there is too much evidence of unworthy motives on the part of the mother and the son, in depriving Fidelia of her liberty and, practically, of her property. We are justified also in crediting the statement that the medical man who signed the certificate was not a man of any position in the profession—to speak mildly. He, unfortunately, bore the honoured name of Pinel, but we are glad to record that he did not belong to his family. He appears to have made a very superficial examination of Fidelia, and to have hastily decided upon her mental condition. At the same time the certificate itself was in accordance with the Statute, and neither better nor worse than many others which are never called in question. One certificate meets the requirements of the French law, and the endorsement of the other doctor was even more than the Act required. Again, the proprietor of the asylum, M. Gonjon, had no alternative but to receive Fidelia, the order and certificate being perfectly *en règle*; nor was he likely to have any suspicion as to her family's motive in placing the patient under his care when he knew she had already been confined several times at Charenton. He has been blamed for sending his attendants for her. If, as stated in the papers, they were men, his mode of proceeding was certainly contrary to our notions of propriety; indeed, the event has shown that he acted unwisely, though certainly not illegally. Formerly in France it was usual for the police to agree to send, in difficult cases, one or two of their number, who, we have reason to believe,

rendered the necessary assistance in a considerate and not merely official manner. Recently, however, in consequence of the attacks made by the newspapers upon the sequestration of the insane, they have been forbidden to interfere in all cases in which private asylums are concerned; but nothing, as we have said, renders it illegal for the superintendent to send his attendants for a patient.

We confess we do not understand why Dr. Gonjon is to be blamed for having discharged Fidelia when he did, that is to say when Madame de Monasterio, who ordered her admission, demanded her discharge. At any rate, it is in accordance with Art. 14 of the lunacy law of 1838, which confers this right, whether the patient is cured or not, upon parents or those who have signed the order. No other course, therefore, was open to M. Gonjon; in fact, he would have laid himself open to severe animadversion had he refused.

We know only too well how ready the Press in England is to seize upon an asylum scandal, whether real or imaginary, and exaggerate the circumstances in every possible way; and we see indications of the same tendency in France. Certain it is that in spite of the violent attacks made upon the proprietor of the *Maison de Santé*, he cannot be prosecuted. The fault, if there be one, lies therefore at the door of the law itself; and this remains true, however disreputable the characters of those brought before the police-court in Paris in this affair may be, and evidently are. The letter of the law has not, it appears, been violated, and consequently no condemnation is possible or justifiable.

That the law admits of revision on certain points is indicated by the *projet de loi* prepared by the Minister of the Interior, M. A. Faillières. It has been asserted in the medical journals that this has been done in consequence of the Monasterio affair. This is a mistake. The changes in the law of lunacy referred to were prepared and presented to the Senate in November, 1882, and have, therefore, nothing to do with this scandal; although it is very likely that necessary reforms will be facilitated by its occurrence.

This proposed change in the law is characterised in the preamble as a complete revision of the French lunacy law, calculated to satisfy the demands, long expressed, of public opinion, and to correct the imperfections and the "lacunes graves et nombreuses" of the very remarkable and creditable law of 1838. It is the result of a Commission appointed in

March, 1881, consisting of a large number of eminent men, including MM. Laségue, Lunier, Foville, Motet, Ball, Baillarger, Bourneville, Loiseau.

Among the modifications of the existing law proposed, is the proposal, "borrowed from English legislation," to require two medical certificates instead of one. The information supplied by the physician is also to be more detailed, the date of the last examination of the patient being stated, the symptoms and phases of the disorder, and the reason why it is deemed necessary to confine the patient in an asylum. The Superintendent must forward copies of this certificate and the order to the Prefect of the department, the procureur of the Republic of the arrondissement in which the patient resides, and lastly to the procureur of the arrondissement where the asylum is situated. Further, the intervention of judicial authority is required for the continued retention of a lunatic in an asylum after his provisional admission. "C'est, en effet, un principe de notre droit que les questions d' État, de capacité et de liberté individuelle, ne peuvent être tranchées que par l'autorité judiciaire."

This principle, it is maintained, was violated by the law of 1838, by which a person could be confined in an asylum on a medical certificate, or even in cases of urgency on the production of a demand made by anyone whatever. The object was, of course, to facilitate the early treatment of the insane; but this intention, it is thought, will not be frustrated by requiring judicial authority subsequent to provisional admission. This authority is to be based on the examination of the patient by the procureur of the Republic, accompanied by a physician chosen by himself—this visit to be made within four days of the patient's admission. The procureur will be bound to forward instructions in regard to the admission or discharge of the lunatic within four weeks.

Various other measures of great importance are proposed in order to perfect the existing law, including the legal care of the property of patients in private asylums; but sufficient has been said to indicate the importance of the proposed legislation.*

* For details see "Projet de loi portant revision de la loi du 30 Juin, 1838, sur les aliénés, présenté au nom de M. Jules Grévy, Président de la République Francaise. Par M. A. Faillières, Ministre de l'Intérieur et des Cultes, Paris, 1882.

PART II.—REVIEWS.

A History of the Criminal Law of England. By Sir James Fitzjames Stephen, K.C.S.I., D.C.L. 3 Vols. Macmillan and Co., 1883.

Lawyers and mental physicians usually meet under conditions so unfavourable to the fair discussion of the questions which are of gravest interest and importance to both, that it is very satisfactory to find one of the most distinguished members of the Bench carefully examining these questions in the work at the head of this review, and approaching them in a spirit of the utmost fairness and candour—qualities too often conspicuous by their absence in the heated atmosphere of the Law Court. Sir James Stephen, while noticing with regret, and we must say not without some reason, the "often harsh and rude attacks" made upon the lawyers, admits that medical men "are sometimes (often?) treated in courts of justice, and even by judges, in a manner which, I think, they are entitled to resent. Sarcasm and ridicule are out of place on the Bench in almost all conceivable cases, but particularly when they are directed against a gentleman and a man of science who, under circumstances which in themselves are often found trying to the coolest nerves, is attempting to state unfamiliar and in many cases unwelcome doctrines, to which he attaches high importance" (Vol. ii., p. 125).

Fully prepared as we are to grant that medical as well as legal men may be one-sided and prejudiced, we heartily reciprocate the sentiment, as admirable as the terms in which it is expressed are felicitous, when the author says:—

"I think that in dealing with matters so obscure and difficult, the two great professions of law and of medicine ought rather to feel for each other's difficulties than to speak harshly of each other's shortcomings" (p. 128).

At the outset of the chapter devoted to the subject under discussion (Vol. ii., chapter xix), and which is entitled "Relation of Madness to Crime," the observation made by the author in complaining that medical writers for the most part use the word "responsible" incorrectly, brings out strongly the different standpoints from which lawyers and ourselves view the matter; the different atmospheres, in fact,

which the two professions necessarily breathe. The lawyer, we are reminded, has in view legal responsibility, while the doctor is apt to confound it with his notions of moral responsibility, and to expect the judges to do the same. The doctor, no doubt, is in fault when he does the latter, or if he does not make it clear in what sense he is employing the term. When, however, he is called upon to examine the mental condition of a criminal with a view to ascertain his responsibility, he is not bound to adopt the test which appears to be at the time the legal one; he may well endeavour to discover whether the man before him is really a responsible being in what he believes to be the true sense of the term, although he should be prepared to give the evidence sought by the lawyers who are bound by the tests of responsibility determined by the judges in McNaughten's case in 1843. While, therefore, we agree with the author that a mental expert ought to remember that with judge and jury, "responsible" means "legally responsible," and that he should, in giving evidence, understand in what sense the Court employs the term, and is legally justified in so employing it, we hold that as a man of science, the physician is not to blame for applying his own tests of responsibility in examining the prisoner, and stating his opinion to the Court, just as we should expect an engineer, employed to ascertain the safety of a bridge, to employ his own tests of safety, and to speak of the structure being safe or otherwise in accordance therewith, and not in accordance with the test which the law had laid down, although the latter must be, or rather we should say, ought to be, followed, if the law were always consistent with itself. No clearer proof can be given of the importance of medical men attaching their own sense to the term responsible, so long as they make it clear in what sense they do use it—even though Sir James Stephen may say that "to allow a physician to give evidence to show that a man who is legally responsible is not morally responsible is admitting evidence which can have no other effect than to persuade juries to break the law" (p. 128)—no clearer proof, we say, can be given that such a course is justifiable than the fact that medical men by doing so have induced the judges themselves, in some instances, to see the weakness of the legal test and the cruel injustice which it would inflict upon the prisoner if adopted, so strongly, that they have deliberately avoided doing that which our author lays down as a fundamental principle

they ought to do, when he writes, "one leading principle which should never be lost sight of, as it runs through the whole subject, is that judges when directing juries have to do exclusively with the question—Is this person responsible, in the sense of being liable, by the law of England as it is, to be punished for the act which he has done?" Thus, to give a recent example of what has now and again occurred. At the trial of Joseph Gill at the Leeds Assizes in April last, for attempting to murder Mrs. Fox-Strangways, the learned judge, Mr. Justice Kay, said, in directing the jury—"The most important question was, were they dealing with a sane man? Judges had said over and over again that a man could not be considered insane merely because he did a criminal act, and the importance of that view could not be over-estimated. Nevertheless, he did not agree with the learned counsel who put it that 'it was necessary to prove that a man did not know the difference between right and wrong in order to show that he was insane.' If a man's mind was in such a diseased condition that he was subject to uncontrollable impulse, they would be justified in finding him irresponsible for his actions. . . . What the jury had to ask themselves was—Was the prisoner's mind subject to an uncontrollable impulse over which his Will had no power? If so they must acquit him on the ground of insanity." This is not "the law of England as it is."

Sir James has been disappointed in finding so slight a description of insanity, as a whole, in the text books, independently of its various forms; and this criticism is just, where the broad features of insanity are not given, or a more or less complete definition of the disease is not attempted, but when that which is generally common to all cases of insanity—loss of mental control, or whatever the characteristic fixed upon may be—has been stated, we cannot proceed far without confounding specific forms in our description, for there is no form of insanity which we can take as an example of the whole, just as there is not any one inmate in an asylum whom we could single out to show a stranger as a representative lunatic. But this is no more exceptional or surprising than the impossibility of describing a healthy human character. A few words would have to suffice, for to attempt the "accurate picture" our author covets, would end in presenting an inaccurate picture of the very next person met with. Even Shakespeare's magnificent description of the attributes common to man—and who can improve

upon them?—would fail to convey quite an accurate picture of any of the members of the Salvation Army shouting in Exeter Hall. In truth, to return from this digression, the phases of insanity are so numerous and so opposite that the characteristics common to all are comparatively few. Few as they are, however, they are given by Dr. Bucknill under the head of the "Diagnosis of Insanity" in the "Manual of Psychological Medicine."* After describing the varieties of mental disorder, as derived from the text-books, and attempting a short summary of "the disease of madness," Sir James proceeds to the consideration of the law as to insanity, and it will be convenient to present his digest of it.

"No act is a crime if the person who does it is at the time when it is done, prevented [either by defective mental power or] by any disease affecting his mind—

"(*a*) From knowing the nature and quality of his act, or

"(*b*) From knowing that the act is wrong [or

"(*c*) From controlling his own conduct, unless the absence of the power of control has been produced by his own default].

"But an act may be a crime although the mind of the person who does it is affected by disease, if such disease does not, in fact, produce upon his mind one or other of the effects above-mentioned in reference to that act" † (p. 149).

Sir James Stephen observes in reference to the answers given by the judges to the questions addressed them by the House of Lords in 1843, after McNaughten's acquittal, that although he has followed them, their authority is questionable, and he candidly admits that "when they are carefully considered they leave untouched the most difficult questions connected with the subject, and lay down propositions liable to be misunderstood." He, however, maintains that they might, and thinks ought to be construed "in a way which would dispose satisfactorily of all cases whatever." It is to this daring task Sir James applies his vigorous intellect, and the question of most interest to us, is, whether he has succeeded.

All the points on which the law appears still doubtful, notwithstanding these answers of the judges, may, in the author's opinion, be reduced to one question—"Is madness

* Page 402, Edit. 1879. It is to be regretted that in his references to this work the author has not consulted the last edition.

† "The parts included in brackets are doubtful."

to be regarded solely as a case of innocent ignorance or mistake, or is it also to be regarded as a disease which may affect the emotions and the will in such a manner that the sufferer ought not to be punished for the acts which it causes him to do?"

Sir James doubts in the first place whether the answers were meant to be exhaustive, and he shows that if they were, they imply that the effect of insanity upon the emotions and will is to be disregarded altogether—a proposition so monstrous in its consequences that he shrinks from admitting it to be part of the English law. We cannot help thinking that in 1843 the judges did not shrink from such a conclusion, and really meant what they said. In 1883 an enlightened judge sees things differently, and if he induces others to interpret these words in accordance with his own view, the mischief they have done for want of so able an interpreter will not be repeated.

If Hadfield's notion that he had received a command from the Almighty to offer himself up as a sacrifice for the salvation of the world, had been a true one instead of being a delusion, would his act have been morally wrong? for according to the judges, a person must be considered in the same situation as to his responsibility as if the facts with respect to which the delusions exist were real, *e.g.*, if under the influence of his delusion he supposes another man to be in the act of attempting to take away his life, and he kills that man, as he supposes in self-defence, he would be exempt from punishment. (Aus. iv.) Sir James Stephen replies that a sane belief of this kind entertained by Hadfield would be no excuse at all for crime, and he pertinently remarks that if a special Divine order were given to a man to commit murder, he (Sir James) should certainly hang him for it, unless he got a special Divine order not to hang him. Hence, although Hadfield ought to have been convicted according to the natural sense of the rule enunciated by the judges, it is so obvious to lawyer as well as doctor that he was rightly acquitted that Sir James Stephen considers that the existence of delusions must have some legal effect other than those which the answers of the judges contemplate. All we can say is, it is a pity that so vastly important a document as the one in question should not have stated clearly what was and what was not contemplated in its scope and bearings; and that if we adopt the sensible exegesis of our author, we are driven to understand some of

the judges' phraseology in something very like a non-natural sense. We cannot but agree with Sir James that "every judgment delivered since the year 1843 has been founded upon an authority which deserves to be described as in many ways doubtful" (p. 153), and that the propositions laid down are "liable to be misunderstood," although it was of vital importance that they should be lucidity itself. Mental physicians may at any rate console themselves with the reflection that this setting forth of the law of criminal responsibility, which has been their *bête noire* for the last forty years, and against which they have been constantly waging war, has not been vilified by them without good cause, and only becomes intelligible and reasonable when construed by Sir James Stephen.

The learned author sees clearly enough, in reference to the question, what effect an insane delusion can exert on a man's conduct, except in relation to the matter to which it relates, that it may indicate disease affecting the mind otherwise than by merely causing a specific mistake, and that it may evidence a mental condition which prevented the person from knowing that his act was wrong. Thus it is recognised that a delusion, which as such, is wholly unimportant, may be highly so, from the indication it affords of serious disturbance of the whole mind, and it is seen that "it is practically almost impossible to say what part of the conduct of a person affected with a fixed insane delusion is unaffected by it" (p. 162). Again, on the second point—that a delusion may afford evidence that a person, in the language of the judges, was "labouring under such a defect of reason from disease of the mind that he did not know that what he was doing was wrong," Sir James Stephen observes that the word "wrong" is ambiguous, as well as the word "know," for it may signify either "illegal" or "morally wrong" (p. 167). Anyone, says the author, would fall within the above description "who was deprived by disease affecting the mind, of the power of passing a rational judgment on the *moral character* of the act which he meant to do" (p. 163). Hadfield knew his act was illegal, and in this sense knew it was wrong, but he believed it to be morally right.

Sir James Stephen maintains, that even accepting the answers of the judges, the law allows that *a man who by reason of mental disease is prevented from controlling his own conduct, is not responsible for what he does* (p. 167). Further,

he holds that "the existence of any delusion, impulse, or other state which is commonly produced by madness, is a fact relevant to the question whether or not he can control his conduct." He grants, however, with his accustomed fairness, that the judges' answers "are capable of being construed so as to support the opposite conclusion"—but he holds that it is a narrow interpretation, which forces us to regard insanity as "merely a possible cause of innocent mistakes as to matter of fact and matters of common knowledge." With his own wide interpretation, "*the law*," he says, "*includes all that I, at all events, would wish it to include*" * (p. 168).

The sensation experienced when, after dreaming we are in a state of hopeless confusion or lost in some inextricable labyrinth, we suddenly wake and find to our intense relief and surprise that we have escaped every difficulty, is not more pleasurable than that which we experience when painfully bewildered after looking in vain in the answers of the judges for a clue to the solution of the problem of criminal responsibility, we are shown that it was there all the time, and only wanted pointing out by the magic wand of Sir James Stephen. We know now, on his high authority, that the essential principle for which medical men have so long been contending is the very one which, unseen by the dim optics of our profession, is contained in the answers referred to. Remarkable indeed are the words of the author:—

"The proposition, then, which I have to maintain and explain is that, if it is not, it ought to be the law of England that no act is a crime if the person who does it is at the time when it is done, prevented, either by defective mental power, or by any disease affecting his mind, from controlling his own conduct, unless the absence of the power to control has been produced by his own default. . . . . .

"No doubt there are cases in which madness interferes with the power of self-control, and so leaves the sufferer at the mercy of any temptation to which he may be exposed; and if this can be shown to be the case, I think the sufferer ought to be excused" (p. 168-70).

Sir James Stephen then asks—"Can it be said that a person so situated knows that his act is wrong?" And he replies, "I think not, for how does anyone know that any

* In every instance the italics are our own.

act is wrong, except by comparing it with general rules of conduct which forbid it, and if he is unable to appreciate such rules, or to apply them to the particular case, how is he to know that what he proposes to do is wrong? Should the law upon this subject be codified, a question would no doubt arise whether the article relating to madness should refer in express terms to the possible destruction by madness of the power of self-control or not" (p. 171).

We may refer here to Mr. Russell Gurney's Bill of 1874, which appeared to medical men to mark a vast stride in advance of previous legislation, in the way in which it recognised, among other things, the loss of self-control from disease, as one of the proofs of irresponsibility. Now, this Bill was drawn by Sir James Stephen, who at that time so clearly saw the importance of this point that he introduced it into this Bill for the amendment of the law relating to Homicide. Though it did not pass into law, it led to the appointment of a Select Committee, when Sir James Stephen gave valuable evidence, and maintained that it was eminently desirable that we should have definitions, and that these definitions should state plainly what the law is.

The opinion expressed in writing to this Committee by the Lord Chief Justice (Cockburn) is well-known, but is so remarkable that it can hardly be too frequently placed on record. He said:—"As the law, as expounded by the judges in the House of Lords, now stands, it is only when mental disease produces incapacity to distinguish between right and wrong, that immunity from the penal consequences of crime is admitted. The present Bill introduces a new element, the absence of the power of self-control." The Lord Chief Justice did not see, as Sir James Stephen now sees, that the latter is involved in the former. Then he added, in those emphatic, and it should seem unmistakable, terms—"I concur most cordially in the proposed alteration of the law, having been always strongly of opinion that, as the pathology of insanity abundantly establishes, there are forms of mental disease in which, though the patient is quite aware he is about to do wrong, the will becomes overpowered by the force of irresistible impulse; the power of self-control when destroyed or suspended by mental disease becomes, I think, an essential element of (ir)responsibility."

In the Criminal Code Commission of 1878-9 the subject of loss of self-control was discussed, but the Draft Code as

settled made no reference to it. Sir James Stephen says that his Bill of 1878, upon which this Draft Code was founded, did refer to it. Sir James does not think this is important, so long as the words "know" and "wrong" are construed—we will not say in a non-natural sense, but—as he would construe them. He takes much subtle pains to show that the man who does not know that an act he commits is wrong is incapable of self-control. In short, he would, after all, be "fully satisfied with the insertion in a Code of 'knowledge that an act is wrong' as the best test of responsibility"—adding once more the essential condition "the words being largely construed on the principles stated here" (p. 171).

We cannot but regret that after the enlightened view which the author really takes of the question, he should seem to be in danger of falling again into the errors from which we fondly hoped he had emancipated himself, for when he says, as he proceeds to say, that if "power" is "seriously impaired" "knowledge" is "disabled," and adds, "It is as true that a man who cannot control himself does not know the nature of his acts, as that a man who does not know the nature of his acts is incapable of self-control" (p. 171), we think that he sails dangerously near the rock on which the judges in their answers were shipwrecked. In short, the legal and metaphysical principle thus formulated, however ingenious, is at variance with the facts daily witnessed in asylum life, and, as we have had occasion to point out, the late distinguished Lord Chief Justice failed to perceive its validity.

We now approach the question of punishment, in some instances, of the insane, and Sir James Stephen discusses it with his usual ability. He does not think it expedient that a person unable to control his conduct should be the subject of legal punishment—perhaps he might have put it a little more strongly! He then opposes the notion that the mere fact that an insane impulse is not resisted is to be taken as proof that it is irresistible, and adduces the case of the woman who felt impelled to kill the child she was nursing with a knife, but had sufficient control to throw away the knife and rush out of the room. Unfortunately Griesinger terms this "an *irresistible* desire to murder the child," and Sir James Stephen is obviously justified in pointing out the illogicism involved in the remark. It is not, on the other hand, clear that the case which he

adduces helps us much, for had the woman killed the child there would have been no proof that she could have helped it. Here is just the difficulty. If a person pressed by a violent impulse is able to resist it, and does resist it, he is not accused of crime, and the question of responsibility does not arise. It is only when he yields that the question presents itself; and then if it is shown to have been an insane impulse, it seems to us that its irresistibility for legal purposes must be assumed, although it is possible he might have exercised more self-control. No one disputes that among the inmates of a lunatic asylum there are different degrees of uncontrollability. This must necessarily be the case in the various stages and gradations through which they pass from better to worse and from worse to better. But the broad fact of mental disorder has to be taken at every period as the proof of such an amount of practical irresistibility as forbids the idea of punishment—except that which is necessarily involved in the deprivation of liberty. We cannot draw a hard line between those who are insane in an asylum and those who are insane out of it. And with the former, how delicate is the line, even when it seems definite enough to the patient himself, which separates the moment when he is and the moment when he is not master of himself! We know a patient at the present time in an admirably conducted asylum, who is allowed, and advisedly allowed, to have deadly weapons in his room, although a dangerous lunatic, because when conscious of the on-coming desire to injure others, or himself, he desires these instruments to be removed, or he locks them up himself. Yet who would deem it just to punish him if he committed a violent act in the interval between his paroxysms of homicidal excitement? The fact of mental disease would constitute a legitimate presumption that he had lost his power of control.

Sir James Stephen proposes that a jury should be allowed to return three verdicts—(1) Guilty; (2) Guilty, but the power of his self-control was diminished by insanity; (3) Not Guilty on the ground of insanity.

At first sight, the second proposition seems fair enough. It, no doubt, is the simple statement of a fact, and if the sentence to which the verdict led were only imprisonment, there would in some cases be no serious ground for complaint of a miscarriage of justice. Still, insanity is insanity, and where, as here, it is admitted that the power of self-control

is weakened thereby, we cannot bring ourselves to consent to any other course than protecting society by confining the individual in a criminal asylum. See to what a conclusion the view advocated by the author conducts him. He supposes the case of a man in a private asylum "suffering to some extent from insanity," but the disease is going off. He is also "wicked," and when his brother visits him he deliberately poisons him in order to inherit his estate. He recovers and does inherit it. Why, asks Sir James, should he not be hanged, "though he happened to be mad when he did it?" and he thinks such a course would be warrantable. We doubt whether any medical superintendent of an asylum would think so. The other illustration given by the author is as little convincing. "If," he says, "a lunatic was proved to have committed a rape, and to have accomplished his purpose by an attempt to strangle, would there be any cruelty in sentencing him to a severe flogging? Would the execution of such a sentence have no effect on other lunatics in the same asylum?" (p. 176). We think there ought to be but one answer to this question on the part of medical men. Nor would public sentiment sanction, we are persuaded, any such proceeding.

There is another very interesting question discussed by Sir James Stephen, on which, we think, his conclusion would conduct him too far if logically carried out—although a final judgment, declared by Omniscience, might be fairly supposed to follow it. He holds that the rule—that a person should not be punished when deprived by disease of the power of self-control—should be qualified by the words "unless the absence of the power of control has been caused by his own default" (p. 177). It is certain that such an exception would allow of numbers who are now in asylums being treated as responsible persons, and punished accordingly, and we think this would be very cruel. Are we really justified in punishing the epileptic maniac for killing his attendant, because the attack under which he labours can be distinctly traced to an immoral life? If a man suffers from general paralysis of the insane and in his mad delusions commits a theft, is he to be punished because his insanity is due to dissipation? On such a principle it would be only necessary to take the causation-table of an asylum, and determine which patients should be regarded as criminally responsible for their actions by the character of the cause assigned for their disorder. The result would be curious, not to say startling.

We must not quit this interesting and able disquisition without observing that the author in referring to moral insanity, allows that if the statements made by standard authorities on the subject are correct, they may be taken "to prove that disease in some cases has the specific effect of destroying for a time, or diminishing in a greater or less degree, those habitual feelings which are called, I think unfortunately, the 'moral sense,'" but he comments on the fact, only too true, that many sane people possess but little that resembles it. This, however, is rather a clever hit at the general depravity of mankind than meant as a serious objection to the admission of those peculiar cases which it is intended to comprise under the term moral insanity, and for which legal irresponsibility is claimed. Here, as elsewhere, Sir James Stephen is as fair as he is able. His fairness will, we hope, lead him to allow that there is, after all, some reason why "many people, and, in particular, many medical men, cannot be got to see the distinction between an impulse which you cannot help feeling and an impulse which you cannot resist" (p. 171). No doubt there is a distinction in degree, but if, as we suppose, Sir James means by "an impulse which you cannot help feeling" an insane impulse, there is no difference in kind. The two alike fall under the cognisance of medical men as diseases which he has to treat; and if under the influence of an insane impulse the subject of it commits a criminal act, his medical attendant would naturally be disposed to conclude that the impulse which he could not help feeling had mastered his previous efforts to resist it. The conclusion is not necessarily logical, but would generally be true; while the opposite conclusion, would not necessarily be logical, and would generally be false.

The medical feeling is precisely in unison, it is important to observe, with what Sir James Stephen acknowledges to be the sentiment by which juries are guided. "They are reluctant to convict if they look upon the act itself as upon the whole a mad one, and to acquit if they think it was an ordinary crime." In other words, they, like the physician, find it hard to avoid making madness and loss of control practically synonymous as regards the infliction of punishment. And when the science of doctors and the instinct of juries lead to a common result, it is not difficult to see what will be the fate of the lawyers in those cases in which there is a difference of opinion.

In concluding this review, we would repeat that we regard

it as of good omen that a distinguished lawyer should have discussed one of the most important questions of the day, affecting alike the lawyer, the physician, the criminal, and society, with so much breadth of thought and so much good feeling. With him the two constituent elements of legal responsibility remain to be equally, knowledge and power; with us the latter is infinitely the most important, as the one which is more or less wanting in all cases of insanity, and which directly affects the efficiency of the penal code in preventing crime—the true test, according to Casper, of responsibility.*

We heartily commend this work to our readers, and sincerely thank the learned author for the spirit in which he has approached, and the manner in which he had treated the medico-legal questions discussed in his pages, for *nil molitur inepte*, although we do not always assent to his conclusions.

Injuries of the Spine and Spinal Cord without apparent Mechanical Lesion, and Nervous Shock in their Surgical and Medico-Legal Aspects. By Herbert W. Page, M.A., &c. J. & A. Churchill, 1883.

The scope of this work, sent to us for review, may seem scarcely to fall within our province, but the medical psychologist will find cases recorded which are by no means without interest in their psychological bearings.

The serious mental symptoms, falling, in general, short of actual insanity, which may arise from injury to the spinal cord, are of great interest and importance, more especially in relation to railway accidents. It must be evident, however, that in such cases, it would be impossible to separate the injurious shock to which the cord is subjected from that which the brain suffers at the same time. Neither would it be possible to determine, when mental symptoms supervene, how much is due to the molecular disturbance, and how much is the result of terror on the occurrence of an accident. That there may be no "apparent mechanical lesion" is very certain.

After an accident has taken place, another phase of abnormal mental influence comes into play, and a very extensive

* Casper's words are—"Zurechnungsfähigheit in Strafrechtlichem Sinne (Imputabilität) ist die psychologische Möglichkeit der Wirksamkeit des Strafgesetzes." See his "Practisches Handbuch des gerichtlichen Medicin, Erster Band," p. 413, 1876.

series of phenomena may here be studied, all more or less directly resulting from the subtle influence of the direction of the attention to the organs of the body.

We cannot doubt that Mr. Page is justified in insisting upon the enormous influence exerted by mere mental shock in the first instance, and by concentration of the mind, subsequently, upon motor and sensory phenomena, in order to strengthen his leading contention that there is no proof that the concussion consequent upon physical shock to the spine without local injury will lead to organic changes in the cord and its membranes. Mr. Page's utilization of the recorded facts of the influence of the mind upon the body, is an illustration of the important bearing and the practical utility of researches in this direction—researches which at first sight might seem to possess only a speculative interest, whereas their far-reaching nature can hardly be exaggerated.

It would be entirely foreign to our purpose in thus briefly noticing Mr. Page's work, to enter into the consideration of the other bearings of the main question discussed by him, and upon which his conclusion so widely differs from that of a well-known surgeon of the present day. Our object is simply to draw the attention of our readers to the psychological aspects of a publication they might overlook, and which they may study with advantage in the direction indicated.

A valuable tabular analysis of 243 cases is appended to the work.

The Alternative: A Study in Psychology.—Macmillan, 1882.

This is certainly a curious and a remarkable book. On the title page the anonymous author inscribes Hamlet's bitter text, "We fools of nature." The preface teems with terse scorn of all philosophies, old and new, and claims that the writer has for the first time not only justified what he calls "the scientific method" against the riotous excesses of induction, but that he has taught mankind a new gospel that has more than all the moral merits of the old "without its supernaturalism and mysticism." And throughout there runs a heroic self-confidence, cropping out not merely in terminology but in the whole tenor of the book, which proclaims to this sceptical generation that it has to do with a prophet.

The first question that will occur to everyone is, what *is* the "Alternative?" Here it is, in the author's own words: "Either puppet, dupe, and victim of unconscious forces, or self-denying conduct for the achievement of wisdom." The antithesis is not quite grammatical, and at the first glance is not very intelligible either. But it carries a very important meaning, which every page of the book is intended to enforce by demonstration and illustration in every conceivable way. The point is developed in the Third Book; for the first consists of *Definitions* demanded by a new classification of mental events and faculties—not the less new that the classes are denoted by familiar names; and the second treats of *Reasoning*. This Third Book, then, is to establish first of all the existence of "unconscious mental event," and, indeed, of an "unconscious part of the mind," which turns out to be "the encephalon, &c." The author begs us to observe that unconscious cerebration and such things, as far as has been hitherto shown, might have been only unconscious conditions of mental events. Indeed, he roundly rates Leibnitz and even Professor Bain for not considering these phenomena as really "mental" at all; whereas he is most positive upon that. But it would hardly seem a very vital difference. The main point is the further proof that in the history of humanity till now, man has been the dupe, puppet, &c., of this "unconscious part of himself."

As might be expected, then, the author's first concern is the careful explanation and analysis of "consciousness." It would be futile to follow him through a long series of curiously worded subtleties, which merely lead up to the re-affirmation of the importance of "latent forms of consciousness." *Inter alia,* he gives us a new definition of "consciousness," whereby it includes not only "discernment-connected-with-apperception," but also "discernment-unconnected-with-apperception." What the latter, the *latent* division, means is illustrated by sundry examples, of which one is so near akin to madness that as the author relates it of himself, it will be wise to quote it in full, in his own odd English:—

"The following mental event was given to the writer as having occurred while he was in a swoon: A discernment void of self-consciousness seemed to have for object a figure consisting of several luminous, variously-coloured concentric rings, the largest about twelve feet in diameter. Time, space, and the figure seemed to comprise all being. There

was no spectator. After a while an impersonal wonder contemplating the figure obtained, and then after a while 'I' was suddenly annexed to the wonder as subject to attribute: for a moment I was aware of myself as gazing at the figure, and with the vanishing of the figure I recovered."

The importance or interest of the book, however, hardly lies in the psychology of which this is a specimen. The author does in reality good service by directing attention pointedly to the immense proportion of our acts which are dominated by forces and processes independent of consciousness. But this has been insisted upon before. Neither will the book survive because of the logical discussion of the nature of knowledge, which, indeed, is sometimes very mystical and strange. Take this refutation of Kant: "Following Leibnitz, he asserts, as though it were a self-evident truth, that what all the world understands by the term experience, does not give cognisance of the non-contingent, of what could *not* be. He thereby implies, or seems to imply, that it is not competent to a latent encephalic event, consequent to a tactile impression, to cause a discernment of both a solid and a non-contingent void." This imposing statement leads up to a demonstration of the error of Kant's theory, by which Space is an *a priori* framework into which the *a posteriori* data of extended objects fall. But although the author is at most elaborate pains to define all his terms as he goes along, and frequently invents a new word or rebaptizes an old one to serve his turn, yet he cannot escape a constant confusion of ideas. In truth, this craze for new terms and independent definitions, which seems to beset each new psychologist of our day, is a fatal snare. For the meaning of the terms of our common mental experience, vague as these are to the common man, is not a thing that can be altered at will. "Conscious" *has* a true meaning, which by clear insight and by just analysis of experience we may make definite. So has perception, or will, or sensation. But to devise, for the elucidation of a new hypothesis, some original definition and then make an old and innocent word fast to it, and go gaily on through endless arguments and theories, always using, or professing to use, this well-known common term as meaning not itself but our new-fangled definition, is only to deepen the darkness. You cannot in reality keep on consistently using a word which has its own hereditary associations in some arbitrary sense of your own. The old associations creep in in spite of you—the more surely that

your own new definition must always be more or less mixed up with the ordinary meaning to begin with. If a new philosopher *must* have new terms to work out his theories by, let him make up his definitions and then put x and y for them. But do not let him say that "*mind* denotes a concrete, or a sum of concretes, that either is or involves what lacks nothing essential to a subject of consciousness," and then suppose that whenever he speaks of "mind" throughout 400 pages his readers will understand not mind but "a concrete or sum of concretes that either is or involves, &c." Psychology is not algebra: for while the latter deals only with the analysis of a simple relation—that of space or number—the former touches *all* the complex and interrelated problems that lie within the touch of human experience. But if a psychologist *will* commit the mistake of arguing on an algebraic system, at least let him take for his counters symbols that are not already saturated with vague and varying import.

If the reader will penetrate, however, behind the curious veil of twisted language, he will find that the tenor of this part of the book is an interesting attempt to disprove the "positivist" denial of the "ego" as "a concrete and durable subject," and of Cause as Power, and Life as "a species of power—a dynamic quality." "Blazoning the sovereignty of experience," he complains "positivism behaves towards it as a sort of Mayor of the Palace, discarding some of its most important data." His rehabilitation of the "ego" is so complicated by the pervading question of latent mental events that an attempt to disentangle it here would lead this notice to impossible lengths. But the argument as to *cause* is worth noting, for it brings out an element in the problem too apt to be ignored by the scientific school who take Hume's half-truths for gospel. The prophet of "The Alternative" admits that he cannot disentangle the idea of power from the many confusions that surround it; but he thinks it is "an embryo which culture is in process of maturing." His argument is, that to say with Mill that "cause is the sum of the conditions" is a meaningless phrase—for in that case time and space, and, indeed, any and all the infinitude of events simultaneous with or antecedent to a given event, are included in its "cause." Everything is the cause of everything else. And this, in a sense, is true. Freewill apart, it is accurate to say that no natural phenomenon would be what it is, if any of the infinite

series of phenomena that have been, or that simultaneously are, could be changed or taken away. But we make a distinction between certain of these conditions which are "causes" in a special sense, and others which are "occasions" or "accessories." Substitute twine for the wire of an electric battery, and the current ceases. There is an aptitude in the wire which might be called "a dynamic condition." Or, to take a better example, we start at a shadow: the shadow is an essential condition, but it is not a "dynamic" one. It was this conception of an element of "power" of some sort, inherent in "cause," that Hume overthrew, and that Hume's opponents wished to use as a basis for the conception of "will" as itself an "uncaused cause," a power to bring into being a fact or state which all the antecedents, minus my volition, would be powerless to create.

On the question of volition, which, of course, is the main point of the book, the author takes decided ground; and his view is presented, as usual, under the bold form of a series of definitions. "*Intention* is a bent of the mind to act according to a present guiding idea," but *choice* is "an intentional act that consists of two acts—first, study of two opposite motives intent upon a preference of one of them—second, a preference." The study is an effect of predetermining causes, the preference is not; indeed, "the idea of choice supposes that the involved preference is not predetermined, and is uncaused. He who affirms that an event presupposes a cause, denies the possibility of choice."

All this may seem very arbitrary, and it is. But the point he wishes to lead up to is worth notice. It is that "*the greater part of perceptible human intentional actions are unoptional.*" For, as he assumes, it is essential to choice, or volition, properly so-called, that the mind should refer to what he is pleased to call "a binary of opposite motives"—a motive to do and a motive to forbear from doing. Obviously, it is true that no such "practical alternative" is in question in the vast majority of human acts. But he insists that the bulk of human *intentions* also are wanting in the same character; and for all "intentions or intentional actions unconnected with a practical alternative," he adapts the misleading term *Instinct*. This is a good instance of the vice of terminology commented on just now—for instinct has a scientific meaning of its own, which, whether it be hard to define or not, cannot be swept away by an arbitrary definition invented

by a theorist. And, indeed, it is hard to see how much or how little he proposes to include in his new class. The examples he vouchsafes are meagre, *e.g.*, "quasi-attention in spite of efforts to undo it," or "anger breaking from control of a man interested and strongly minded to dissemble." It is to be regretted that he did not spend more pains over the new classification, for it is worth attending to. Habit, instinct, and their allied conditions, are problems which students of mind, and specially of mental pathology, have never sufficiently studied. We all see that there are thousands of acts, including many of the highest importance, which we do at first only by a distinct volitional effort or assent, but which in time become all but automatic. And yet we do not really take them to be unintentional, or in any real sense mechanical. When a choleric man, who has given the rein to his temper, seems to be carried off his feet by a trivial annoyance, he knows, and we know, that he could stop himself if he chose, and we hold him fully responsible for his explosion. But, of course, the "habit" of breaking out in that or any other form of passion has made acquiescence in any new temptation easier, and resistance more difficult. And the point at which the habit may merge in a moral madness and become an uncontrollable necessity is *apparently*, in each man's case, a question only of degree. Is it *really* so? Is moral impotence a species of bad habit? If that were proved by mental science, it might be an interesting question for the theologians to consider whether it did not provide a possible theory of hell.

But we are deserting our author. He brings us next to the startling proposition, which is in a way the key of his whole position, that "Will" has very little to do with the affairs of life. For the most part, the strongest motive prevails—"propensity" does the ordinary business of the world. Thus is "our mind made up for us." Only at rare intervals does moral *choice* come in, but these occasions are the valuable part of human conduct. It is when Wisdom demands resistance to propensity that Will has its opportunity. That opportunity is the opening for the introduction of the improved form of Christianity which this anonymous prophet has discovered—a revision in which, "Wisdom and the Christian spirit are identical," and the ideas of reverence, godliness, &c., are seen to be only "the scaffolding of the temple." It would be too long, and it would be out of place, to sketch the extraordinary series of moral disquisitions, for

the most part deeply interesting, by which this singular writer developes his new ethical plan. St. Paul, the author of the "Imitation of Christ," Hume, the Puritans, and many other ethical authorities not commonly found in company, are all drawn in; and if the total result is a little hazy, it is at least to be commended as a serious attempt to tackle those moral problems which the prevalence of shallow utilitarian shibboleths has lately tended to put out of sight. The book ends with an odd abruptness. He has intimated that there are difficulties in *proving* the freedom of the Will. But instead of refuting statistical and other objections, he contents himself with saying that even if it were apparently drawn into doubt, we must rescue ourselves at all costs from the moral paralysis which that involves. In the last resort, we are therefore to take refuge in an "*arbitrium*" a voluntary determination to act as if free-will were proved, whether we think so or not—a *decree*, in fact, that Will exists!! Having done this, a man may "by ordinate self-denial (in the way of volitional checks upon propensity) improve his instincts, and make probable the possibility of man becoming Christ-like." And then afterwards we have an elaborate diagnosis of the really Christ-like character, and even a description of the "Summum bonum." But suddenly, when we arrive at the last chapter, and, finding it duly headed "Man, Puppet, Dupe, and Victim of Unconscious Force," expect a final blaze of luminous teaching on the relation of the unconscious to the development of humanity, he stops in two rambling pages and leaves us to draw the moral of the book ourselves.

Probably, the moral which most of our readers will draw, if they read this psychological curiosity, will be that the author is somewhat eccentric at the least. But there are among his disordered paragraphs not a few sound ideas. An eccentric mind is of use somewhat as a wit is—because it is struck by associations and connections of ideas which do not suggest themselves to the too sane minds that work along the highways of knowledge. The author of "The Alternative" will do such service to the limited number who will be at the pains to follow him. The philosophy of the unconscious, if it has been too popular in Germany, has not been prominent enough in English psychology; and it is a fruitful field. The distinction between propensity and will, and the extent to which, by a kind of moral laziness, "our minds are made up for us" perpetually, are subjects that involve infinite

issues. Therefore, with all its obvious faults and follies, we welcome this book; and we venture to hope that it is one among many signs that the tyranny of the lately dominant English school of psychology is giving place to independent thinking, even though that be, as it must be in the beginning, a little wild and unprepared. It is high time that we produced a new philosopher.

Die Alcoholischen Geisteskrankheiten im Basler Irrenhause, &c. Vom damaligen Assistentarzte. Von Wilhelm von Speyr. 1882.

This dissertation consists of a valuable collection of actual cases, well observed and thoughtfully classified. Dr. W. von Speyr, possessing, as he does, a critical mind and a fine perception of differences, approaches the subject of which he treats with the mental qualities so requisite for psychological study. His treatise is dedicated to his teacher and physician-in-chief, the well-known and esteemed Professor Wille, of whom he has proved himself to be an apt pupil and loyal disciple.

Dr. W. von Speyr, after briefly discussing ætiological classifications of insanity, groups together the following specific alcoholic psychoses:—

I. Pathological intoxication (Alcoholismus Acutus.) II. Alcoholic Insanity. (*a*) Acute. (*b*) Chronic. III. Delirium Tremens. IV. Chronic Alcoholism.

Of the first, the delirious and maniacal attack resulting from the abuse of alcohol, and developing itself not very suddenly and completely, a typical example is given, viz., that of

A man who, having fallen down in the street, was admitted into the Basle asylum. He had been unconscious, and violently convulsed, and had bitten his tongue. The pupils were dilated and insensible, the eyes red and dull, the body and limbs being still frequently convulsed. Although he could not stand alone he avoided everyone; he cried out loudly when the attempt was made to support his head. He stammered out a few words, and had painful visual and auditory hallucinations. A warm bath and cold affusion brought him round so far as to be able to answer questions shouted into his ear; after which he slept the whole night. In the morning he was himself, and related that when drunk he stumbled against some one in the street and fell

down. After that the only thing he remembered was being carried to the asylum and being put in a bath. The urine was normal; the patient had never had epileptic fits. He had, however, been once in a hospital for concussion of the spine arising out of a fight.

A case of transitory alcoholism follows, in which

A man recovering from a severe attack of typhus fever drank some wine after being discharged from a hospital, and returned on the same day apparently sober. Without being aware of it, he broke the rule of the house in bringing with him some biscuits for another patient, in consequence of which the others bantered him. He became at once deadly pale, and gnashing his teeth stormed about the room crying and gesticulating. He defended himself against imaginary charges of theft, &c., and wished to fight them all as an old soldier. He was with difficulty overpowered and dowsed with cold water and conveyed to the asylum, on the way to which he vomited. His face was pale, his pupils dilated and insensible; temperature normal, no tremors or perspiration; but there were still grinding of the teeth, excited gestures, hallucinations, distress and confusion. He ejaculated broken threatening words, and laughed and sang, and bragged meanwhile. He soon, however, became exhausted, and within twelve hours came to himself, although still in trouble and very tired. He slept the night without dreaming. In the morning the patient, an intelligent joiner, was ashamed of himself. He knew he was beside himself, but was oblivious of all that had happened. It should be added that he had not suffered from epilepsy, and had had a similar, only slighter, attack when he was a soldier.

This, then, was a very transitory state, and Dr. W. von Speyr proceeds to contrast this with the previous case. In that the symptoms of a heavy debauch were present, and stood in direct relation to the craving for alcohol, and in accordance with it, and the disorder developed gradually and not in a sudden outbreak. In the second case, on the contrary, the amount of alcohol taken was small. It did not act in a specifically intoxicating manner, and no one simply regarding the symptoms would have suspected drunkenness, but only a sudden outbreak of excitement in consequence of a little well-meaning banter, in a constitution rendered morbidly susceptible through typhus fever. This is quite in accordance with the parallel instance in which an anæmic woman who has recently weaned her child, or who has been weakened by a severe labour or puerperal fever, loses her mental balance through slight inbibitions of alcohol; or again, the woman with poor blood, who becomes maniacal

in consequence of her husband returning home late and quarrelsome while she is menstruating.

Passing on to Alcoholic Insanity, which Dr. von Speyr describes as a mania of persecution with hallucinations, he gives the usual divisions of the acute and chronic forms, and very properly lays great stress upon the importance of the distinction between delirium tremens and the first of these divisions. The distinction, we need not say, is fully acknowledged in our own country. We cannot do better than take the writer's own case of acute alcoholic insanity as an illustration of this distinction.

A young man deserted from the military service in which he had been notorious for sexual and alcoholic excesses, including absinthe-drinking. He became one day suddenly insane, had hallucinations, was anxious, and had tremors and loss of sleep. His symptoms were aggravated at night. When admitted there was tremor of the tongue and limbs; the pupils frequently unequal, the temperature normal, the pulse weak and excitable. The appetite was bad, but there was no fear of poison. Sleep was obtained on the first night with chloral for only two hours, but afterwards it was good. He was rather restless; his memory was good; his hallucinations lively, but sometimes he acknowledged them. A wild beast, he said, was in his body, burning his stomach and biting his back; while a ball pressed upon his head. The birds sang in his ears, a demon mocked him, he heard reproaches. He saw his dead parents, and he fancied a bit of bread transformed into a monster. The pillow at night rose up before him. The voices compelled him for three-quarters of an hour to distort his mouth or to hold his hand to it and his ear. He fancied he saw faces peeping at him out of crevices in the wall.

In about ten days the hallucinations vanished; the voices of birds, however, remained longer. His physical state improved; the tremors lessened. The anxiety gave way to the perception of humour, and the patient left his cares to the future. He was discharged in a month's time.

The author tabulates 18 cases of typical acute alcoholic insanity, occurring in 13 men. The more cultivated were attacked, the reverse of what held good in delirium tremens. The majority were unmarried, and between 25 and 35 years of age, only one was above 50; he, however, had been deranged previously. The average age was 30. It was the exception for the attack to last longer than a week. No patient had had epileptic attacks. Heredity was indicated in most cases by drunken or neurotic relations. All admitted intemperance in drinking wine, beer, absinthe, or "schnaps."

In some, sexual excesses were also acknowledged. The exciting cause of the attacks was not very apparent. In one case the attack followed a blow on the head. Some blamed disappointment in their affairs, but there was in fact nothing more than the consequence of frequent debauches. In no case was the discontinuance of drink the cause. The physical symptoms, though not wanting, fell into the background by the side of the mental affection. They were transitory, and were more marked in their early than the fully developed stage. Most of the patients were well nourished, some showing a tendency to be corpulent. The expression was animated, mostly painful, only exceptionally expressionless and dull. Pallor was frequently noted. Gastric disorders were insignificant; the appetite and digestion as a rule were good, diarrhœa rare, but a coated tongue and heartburn were more frequent. Disease of the heart or vessels was not observed, but vaso-motor disturbances, palpitation, congestion, change in the colour of the hair, buzzing in the ears, dazzling and vertigo were common. In no case was there collapse. In none was the presence of albumen recorded.

Tremors of the tongue and hands were noted in the large majority of cases, although they were not excessive. In one patient, in addition to muscular tremors, there was unequal sweating on the two sides, and unsymmetrical growth of the beard. Convulsions were but seldom observed, and then only in the facial muscles. Inequality of pupils was noticed in a third of the patients, but it did not last long.

The locomotive power of the patients was good, few being weak in the legs. All movements were easily executed, and there was neither cramp of the muscles nor grinding of the teeth. When symptoms of mental stupor were observed the form of disorder was either not altogether alcoholic or there were indications of epilepsy. That the muscular system participated but little is shown by the rarity of fatigue on convalescence. Articulation was always good, only sometimes hurried, never hesitating or thick.

Anæsthesia and analgesia were, when tested, not discovered. All the senses were marked by their acuteness. The characteristic symptom of delirium tremens—hearing evil things spoken—was observed only in one severe case, in the oldest patient. Diplopia was not present in any case.

The subjects of acute alcoholic insanity sleep remarkably well, and if not are easily affected by hypnotics, even when

they have been painfully excited in the evening. However, all, sooner or later took doses of opium or chloral; in no instance did the sleep prove critical, the patients being as much hallucinated after as before; at the same time it always exerted a beneficial influence on the course of the disorder. During convalescence, there was not unfrequently loss of sleep, partly owing to the suspension of narcotics, partly in consequence of intercurrent disorders, and still more of the chronic alcoholism which remained.

Severe headache was, on the whole, rare; there was usually only a sense of pressure. Dizziness was frequent, and there were epileptoid symptoms in two instances, and in one a distinct epileptic attack after taking a bath. This seemed to have no influence upon the general course of the disorder.

Of psychical symptoms, the most important were the illusions of the senses, with the exception of those of smell and taste. Auditory hallucinations were most frequent, being present in all the cases. The patients heard mocking expressions, warnings, reproaches, threatenings, judgments, orders, exclamations of woe from relations, God's voice, quarrels and disputes. In two-thirds of the cases there were visual hallucinations. Patients saw their acquaintance, their enemies, ghosts, corpses, heads, forms, beasts, then fire and smoke with pyrotechnic displays, judicial proceedings, frightful heads and battles. In half the cases hallucinations of feeling, mostly of a hypochondriacal character, were present, *e.g.*, an animal in the body, burning and pricking sensations, nightmare, magnetism, &c. A not uncommon delusion of those labouring under delirium tremens, that of having snakes in the hair, was observed in only one case.

The hallucinations were never of a pleasant character, but the reverse, and often as dreadful as it is possible to conceive. The patients would often see and hear their relatives suffering; for example, a man saw his wife flayed alive, and a dog feeding upon the mutilated body. The hallucinations had seldom or never any connection with the previous occupation of the patient. In the same case, they were generally pretty uniform in their character.

The hallucinations did not always vanish at once, but became indistinct, faint, and in their place there were singing and whistling in the ear, and less frequently foggy vision before the normal condition was restored.

In Dr. von Speyr's cases there was no tendency manifested to exalted ideas. No one gave himself out to be greater than the reality. On the contrary, a patient maintained how insignificant he was. There was especially a marked absence of religious exaltation. If intercourse with the Deity was maintained, and this happened only twice, it assumed the form of being charged with sin, or of doing certain acts as a penance. Not until convalescence did there come, as with many alcoholic patients, along with moral weakness, an optimistic valuation of their condition and their capacity to enlighten others. All the patients believed themselves pursued, without cause, and punished illegally and with unjustifiable severity. Almost always they were pursued by murderers. Death stared them in the face in some form or other, least frequently by poison, often by shooting or slaughter, generally with inconceivable tortures. Several dreaded being vivisected, one being bewitched and changed into a dog. The forms of gipsies, freemasons, judges, and executioners, presented themselves. One-third of the cases were accused by the police of robbery, arson, murder, and rape. The law will certainly punish them; impeachments, judgments, and everything horrible pass before the patient's mental eye; nay, he reads at last the indictment in which his particular sins are recorded. Such a patient escapes, so to speak, from himself, to justify himself before the police.

It is noteworthy that these patients do not suffer on their own account only, but on account of the imaginary dangers of their nearest friends, and some suffer the greatest anguish because they cannot help them. This participation in the sufferings of others is not confined to the married, though naturally most striking with them. Nasse's observation, although referring more to chronic cases, is confirmed here. The married underwent severe sufferings, through fits of jealousy on account of the infidelity of their wives. With the unmarried there were sexual delusions of a hypochondriacal character which took the place of the foregoing. Besides these there were others, as that a portion of the lung was destroyed; that an animal was gnawing at the vitals; that the skin was covered with spots; that the bowels could not act; and of course electricity and magnetism played their part.

The anguish such patients suffer expresses itself differently in different cases. With some it is manifested by excite-

ment, with others by restlessness. They explain despairingly to all, especially to the physician, their unmerited sufferings, and urgently implore protection. Others, who, as a rule, sleep better, remain quiet and mope alone, are only alive to their hallucinations; but their expression, distrust, and disregard for the misfortune of others, betray their condition.

(*To be continued*).

PART III.—PSYCHOLOGICAL RETROSPECT.

1. *English Retrospect.*

Asylum Reports for 1881.

Want of space compels us to deal this year in a somewhat summary manner with these publications. We are not conscious that anything really important has been omitted, but we have made the extracts and the remarks thereon as short as possible; indeed we have avoided making the latter except where really necessary.

It is worthy of notice that at nearly every English asylum the Commissioners made special enquiries as to the patients confined to airing courts and those walking in or beyond the grounds. This is a most important matter, and it is quite evident that it does not receive sufficient attention in some places.

We would again gently urge the necessity of preparing the reports with care. Printers' errors are unnecessarily numerous, the style is often just a little careless, so much so indeed as to leave the meaning obscure; and, sometimes, the rules of Lindley Murray are, to the slightest possible degree, ignored.

Argyll and Bute.—On account of continued overcrowding, the District Board resolved that a separate building should be erected to accommodate 126 industrial patients, 63 of each sex, at an estimated cost of £7,500.

Dr. Cameron reports that the open-door system, which had been in operation during the previous two years, was about to be extended to the whole of the institution. Eighty-one per cent. of the men, and 54 per cent. of the women were on parole.

It is remarked in a report by a Commissioner that "the asylum furnishes accommodation to 40 private patients, paying low rates of board, and in this matter it renders a very useful service to the public. No other district asylum does so much in this direction." It would be well if all county asylums in Great Britain did the same. The inferior class of private asylums would disappear.

(Report for 1882). During the last few years there has been a remarkable increase in the demand for asylum accommodation in this district. This subject is treated of at some length in the report by Dr. Arthur Mitchell, who strongly recommends the boarding-out of all harmless and incurable cases.

Barnwood House.—This hospital continues to exhibit signs of energetic and successful management under its able superintendent. Extensive alterations and enlargements have been completed, thus providing accommodation for 30 additional patients.

As the question of pensions is now engaging the serious attention of asylum officers, the following paragraph may be interesting. The proposed arrangement is a satisfactory evidence that the Committee of Barnwood House appreciate the necessity of treating the officers liberally. "As the establishment increases in importance the number of its officials must also increase, and the Committee consider that the time has arrived when it would be expedient to make some provision towards a retiring pension for old and faithful dependents. They are not yet prepared with a complete scheme, but considering the arduous and frequently repulsive duties which are discharged by attendants, and the qualities of kindness, firmness, and forbearance which must be continually practised, it may be considered that good attendants are rather exceptional persons, and, after long service, demand special consideration from their employers."

There is now an assistant medical officer, and three ladies act as nurses. The Commissioners report that "recently a gentleman, after his discharge from this hospital on recovery, made complaint that his letters, written during his insanity, had not been kept back from the post." Surely the duties of a medical superintendent are beset by difficulties.

Barony Parochial Asylum, Lenzie.—There is nothing new to notice in this report. The system, now no longer peculiar to Lenzie, continues to be developed in detail, and to produce satisfactory results.

The report by Dr. Arthur Mitchell, as the result of his official inspection, is very interesting. We extract the following paragraph referring to outdoor employment. His remarks may do good by directing the attention of asylum officers to the subject. It is most important that attendants in charge of working parties should work, and not merely direct. Example is better than precept.

"The employment of the men in active healthy work out of doors continues to be a highly satisfactory feature of the management, and is certainly productive of important benefits to the patients. It was frequently observed during the visit that the patients do not engage listlessly, but heartily, and with interest, in what they are doing, which all of them see to be of a useful character. It is impossible to estimate the value or extent of the work they perform; but no one can see them engaged in it without realising that both the value and extent must be great. All the attendants who are with working

parties, join in the work, whatever it is, with as much energy and interest as if they were paid for results. It appears, indeed, to be essential to success that this should be the case. Even the head outdoor attendant, who has a general direction of all working parties, puts off his coat like patients and ordinary attendants, and joins actively in the work. The patients are led to follow example rather than precept, and it was manifest that a large number of them were as much interested in the progress of the work in which they were engaged as any labourers or artizans could be. Indeed, it is held that unless this interest can be aroused and kept up, the value of the work done by patients as a means of treatment is greatly reduced. In other words, it is not always sufficient that a patient shall be in the open air and doing work. This, of course, is good for him whatever his condition may be, and for some patients perhaps it is the chief good, but for others it is far from being so great a good as it becomes when an interest in the work is developed, and when patients are led to be industrious for a definite and manifest purpose, the accomplishment of which gives them a certain pleasure. There are many patients, no doubt, in whom this interest cannot be roused, and who simply perform in a listless way what they are asked to do; but in this asylum an earnest effort is made to excite in all patients an interest in their work, and it is done with much success as regards a considerable number, among whom are the very patients most likely to be benefited by it, those, namely, who are under the dominion of ever present despondency or delusions, from which they escape temporarily and partially through this interest in their work, and it cannot be doubted that such recurring escapes are curative in their tendency."

Bedford, Hertford, and Huntingdon.—Some trouble appears to have been caused by the employment of unsuitable attendants. The Committee report :—

"Some cases of neglect of duty and of ill-treatment of patients were reported to the Committee, and the parties complained of were dismissed. One case in February last was of so serious a nature, it being reported that four male attendants had severely beaten a patient, that directions were given to take proceedings against them at the Divisional Petty Sessions at Biggleswade; they were convicted and sentenced each to pay a fine of £10 and costs, or in default to undergo two months' imprisonment with hard labour. Since that time no further complaint has been made, and the attendants appear to perform their duties with kindness and consideration."

Mr. Swain refers to the same prosecution, and at the same time speaks of the difficulty in securing suitable persons as attendants and nurses. "It has been found that some attendants engaged with good characters, even from other asylums, have been quite unfitted for the positions they sought to occupy." It is not surprising that the applicants from other asylums turned out badly. Good attendants

do not readily change their place of employment. So well is this understood that not a few medical superintendents refuse all candidates who have already had asylum experience. In this they act wisely.

Bethlem Royal Hospital.—In his report Dr. Savage touches briefly on a variety of subjects, such as the reception of paying-patients, the seeing of out-patients, &c., but we need only reproduce the following paragraph relating to a most important subject, the clinical instruction in mental diseases.

"During the summer months the classes from Guy's were instructed four days a week in the wards, and Dr. Rayner used the rich field of instructive cases for his class of St. Thomas's men; and once more I would say that the influence is altogether good, giving the patients confidence that their cases are being thoroughly gone into, and that they are medical cases, and not prisoners. As much as possible other medical men have been encouraged to visit and study in the wards, and I can say that no investigator, who has any real interest to serve, has been prevented following his researches here. The wards of an asylum cannot, in my opinion, be too open to the medical and scientific world, as we have so much to learn that it behoves us to seek light from every source. Many new methods of treatment have been tried, with varying success, the most novel being a fair trial of the French method of prolonged baths of eighty-five degrees continuously for eight or nine hours for days together, and in some cases with some success; other modes of bath treatment will be tried, but I fear, until we have increased means, we cannot do it justice."

Berkshire, &c.—Important additions have been made to this asylum. In order to utilise the surplus accommodation, and confer a benefit on the poor middle classes, the Committee very wisely determined to admit a limited number of private patients. We regret and are much surprised to learn that only three cases have been brought to the asylum. It is difficult to explain such a condition of affairs. It may be that the arrangement is not sufficiently known. It would be well if every doctor, parish clergyman, clerk of the Guardians, and relieving officer were informed by circular that patients of limited means can be received.

Some of the patients discharged "recovered" had been insane for long periods, and were at one time considered incurable. One man had been an inmate for four and a half years, another nearly nine years, and one female close on ten years. She had been for many years subject to epileptic seizures, but had been completely free from them for two years.

Birmingham (Winson Green).—It cannot but be viewed as a serious omission that the report by the Commissioners is not printed in this report.

Bristol.—A new church, described as an attractive ecclesiastical

building, has been built, and is in use. It is proposed to add the old chapel to the dining-hall.

The Commissioners strongly urge the adoption of continuous supervision of epileptics at night. They even go so far as to say that they "must regard the neglect of such precaution as directly involving the medical superintendent in personal responsibility for deaths, to a certain extent preventible." After that very strong hint, we would advise Mr. Thompson to adopt the arrangement. He need not urge expense as an objection. Most asylum physicians will admit that, from a purely selfish point of view, continuous supervision is advantageous. When the best is done, no one can find fault, come what will.

Amongst the cases admitted it was found that the mortality amongst patients brought from workhouses was double that amongst those brought from their own homes. Of 131 admissions, no fewer than 46 came from the workhouse. Of these 46, 10 died in the year of admission, that is at the rate of 20·4 per cent.; while those coming from other sources died in the same period at the rate of 10·6 per cent.

Broadmoor Criminal Asylum.—Probably no asylum in England publishes a report on which so much labour is expended. It is impossible even to enumerate the subjects referred to in the 95 pages to which it extends, but the reader is forced to conclude that the information is most minute and accurate, and that the asylum is under most judicious management and in excellent order. We are glad to know that the grievous attack from which Dr. Orange suffered since this report was issued has in a great measure been recovered from. The following paragraph, referring to the re-admissions, is specially interesting. It has always struck us as most pathetic that poor creatures should show such consciousness of their condition that they voluntarily seek rest and protection in an asylum. To be insane is bad enough, God knows, but to be insane and know it, is probably the perfection of misery.

"Amongst the persons admitted during the year there were five who had previously been inmates of the asylum. One of these had been on the first occasion transferred to a county asylum, upon the expiration of sentence; another had been sent back to prison; leaving three who had been discharged out of custody from this asylum. Of these latter, one was re-admitted at the request of the relative to whose care he had been discharged, in consequence of relapsing into intemperate habits; whilst the other two were re-admitted at their own request. One of these was a man who in the first instance was admitted in the year 1870, having been acquitted, on the ground of insanity, of the murder of one of his grandchildren, and who was discharged conditionally in 1879 to the care of his sons. Early, however, in 1880 he gave himself up to the police, stating that he did not feel well enough to remain any longer at large, and asking to be sent

back. The other case was that of a woman who was acquitted, on the ground of insanity, of the murder of her sister in the year 1861. She was discharged conditionally in the year 1868, but after an absence of twelve years she wrote a letter stating that she felt unable to trust herself, and asking to be taken back. It is somewhat interesting to find that out of 11 persons who have, since the opening of the asylum, been re-admitted after having been conditionally discharged, six of the number have themselves asked to be taken back, having become aware of their relapsed condition before it was observed by those around them."

Cambridge, &c.—To peruse this report is not pleasant reading. The entry by the Commissioners is a continued growl; the report by the visitors is unique for its length and painful minuteness; whilst that from the late esteemed superintendent, Dr. Bacon, extends to only two and a quarter pages of large print. There are constant references to sub-committees which appear to do everything except the medical work.

The Commissioners say :—"There is much that needs doing within the asylum in the way of painting, plastering, &c., and in one or two places a brick needs replacing ; but very much is left till the monthly visit of the Committee, as we have had the 'emergencies' brought before us since the last Committee day, and find the medical superintendent only puts down the veriest trifles, such as we should have thought might have been done as a matter of course. We take the two first and two last items out of the last entry as a sample of what is entered :—(1) Mend chair ; (2) 2 panes of glass to be replaced ; (16) Repair bedstead M 3 ; (17) 4 Kitchen tins to be mended."

This is "red tape" management with a vengeance, and is calculated to excite nothing but derision in men who know how asylum work should be done. The visitors no doubt believe they are doing the best they can for the institution, but their best is not good, as the actual weekly cost was 11s 2d, at least 1s per week more than it should be. Unless it be in Middlesex, we know of no asylum in England where the staff is so in danger of being paralysed by the interference of the visitors as Cambridge. Dr. Bacon's righteous soul must have been often vexed with this state of things, though in spite of it he managed to do so much good before he left this world.

Carmarthen.—When a patient in an asylum is found to have sustained an injury, there is too much readiness shown in official and non-official circles to blame the asylum authorities. It is too easily forgotten that some injuries are difficult of detection in the sane, and infinitely more so in the insane. We therefore direct special attention to the following case reported by Dr. Hearder. He and his officers are to be congratulated on escaping much undeserved blame.

"In February a woman, aged 67, was admitted suffering from acute mania, and so violent that no satisfactory examination of her chest could be made. The following day she was again very violent,

and the combined efforts of several nurses were required to restrain her. On the third day she was more amenable to treatment, and it was found she had at least one rib fractured; but even then the efforts of four persons were necessary to hold her while a fifth applied the requisite bandage. She fortunately improved mentally and was able repeatedly to state that she had fallen downstairs about a week before admission and hurt her side. She died after two months' residence. Had her death occurred before she could explain how her injury had occurred, the nurses in charge, and with whom she had struggled the day after her admission, would undoubtedly have been credited with the injury. After death it was found that the 8th and 9th ribs on the left side had been fractured. This case is instructive and important."

The weekly cost is very low in this asylum. In 1881 it was only 7s. 10½d.—a wonderfully small sum.

Cheshire, Upton.—A large dormitory, capable of accommodating 52 patients (females), has been built at a cost of £1,738. Ten acres of land, specially suitable for sewage irrigation, have been purchased.

The wages of both male and female attendants have been raised.

A male patient, discharged on probation, committed suicide. Such events have become so frequent, comparatively, that a superintendent should pause before he loses sight and control of his patient, but continues responsible for his life. There are so few advantages to be gained by such a form of discharge, and such obvious risks, that it should be adopted only in very exceptional cases.

Cheshire, Macclesfield.—A woman, whilst absent on trial, committed suicide by poisoning.

Dr. Deas refers to the allowance of beer as an article of diet in asylums, and says: "Here, as in many asylums, those patients who do not take beer or object to it are allowed milk instead; and supposing beer were abolished, the logical result would be to give milk to all." That scarcely follows of necessity, for if the diet be ample milk will not be absolutely required, though it may be given where liked.

At considerable length Dr. Deas reviews the statistics of his asylum during the past 10 years, the period during which it has been open. He devotes special attention to the consideration of the effect of the 4s. grant upon the increase of the asylum population. Whilst many asylum physicians will have some difficulty in agreeing with his first conclusion, none will dissent from his last. He considers that the following general conclusions may be fairly drawn from the figures and considerations he has adduced:—

"1. There seems no reason to believe from the experience of this district that the tendency of the 4s. grant has been to crowd the asylum with patients not requiring asylum treatment, but proper to be kept in a workhouse.

"2. In regard to two unions, while there has been a moderate in-

crease during the last seven years of the patients in the asylum, and of the admissions, the numbers in the workhouses have remained almost the same; in another, there has been a slight increase in the workhouse, while those in the asylum are the same.

"3. In regard to the union sending the largest number of patients, while the total number in the asylum and the workhouse has remained almost the same, there has been a steady alteration in the relative numbers; those in the asylum increasing every year, while *pari passu* those in the workhouse have diminished.

"4. The operation of the grant seems, on the whole, to have been beneficial, by helping to lessen the temptation to detain recent and possibly curable cases in the workhouses; the good thus effected being much greater than any inconvenience resulting from the occasional sending of cases which might have been kept in the workhouse."

Cumberland and Westmorland.—The new buildings are approaching completion, a portion being already occupied.

The Commissioners again refer with approbation to the quiet and orderly conduct of the patients, and attribute it to the large amount of out-door exercise given, and the avoidance of a too strict classification of noisy and troublesome cases.

"The census taken during the year affords an accurate means of finding whether there has been any change in the percentage of insane chargeable to the rates in the population of these counties at the two last periods of its being taken. In 1871, in Cumberland, there was one insane person to every 500 of the population; in 1881, there was one insane person to every 523. This is an encouraging state of matters—an increasing population and a decreasing percentage of insanity, and this in spite of several adverse circumstances, which I need not touch on here.

"In Westmorland, however, there has just been the opposite. There was, in 1871, one insane person to each 520 of population; in 1881 there is one insane to each 414, and there has been a decrease of 826 in the population."

The report presents a favourable picture of the condition of the asylum, but not more so than the impression we have ourselves received from going over the asylum with Dr. Campbell some months ago.

Crichton Royal Institution.—Many important improvements have been carried out in this hospital and in the Southern Counties Asylum.

There is a seaside residence for the patients in the Crichton. It is in use for five or six months in the year. During the season about 54 ladies and gentlemen enjoyed a three or four weeks' stay there. The house is an ordinary villa; there are no locked doors, and great liberty is allowed to the patients. Distinct benefit to body and mind is derived from this most valuable arrangement.

Denbigh.—Large additions have been made to this asylum. A building for 160 male patients has been finished. A new dining-hall,

capable of seating 400, is now in use. A new chapel has been built, and plans prepared for farm buildings. An excellent year's work. The larger portion of the original building is to be heated by hot water.

Derby.—Dr. Lindsay explains the high death rate, 12·8 per cent., by pointing out the extremely unfavourable nature of the admissions, in 21 of whom, over a third, the admission and death took place the same year. In a third of the deaths the age was from 55 to 77.

The staff has been increased by the addition of an attendant and a nurse.

The asylum continues to be in an excellent state, and we speak from personal knowledge when we say that its efficiency is highly creditable to the superintendent.

Dundee.—The new asylum is all but complete, and is already occupied by a few quiet patients.

On the last day of the year an entertainment was held of too unique a character to be passed over in silence. This consisted of a tea-party, exhibition of dissolving views, followed by dancing, and a special supper given by one of the private patients on the occasion of his completing his fiftieth year of continuous residence in the present building. The venerable host was admitted for the second time into the asylum on the 31st December, 1831, and his jubilee thus appropriately terminated the festivities of 1881.

We would recommend the publication of the Commissioners' reports as a part of the annual report by the Committee. Such an arrangement is usual, and decidedly satisfactory. The Commissioners may not always be correct in their applause or criticism. Still the public like to know what they say.

Durham.—A detached chapel is urgently required. The present chapel accommodation is neither satisfactory nor sufficient.

Twenty-seven cases of typhoid occurred in three months, with only one death. It is reported that the cause of this outbreak was readily detected and rectified.

Dr. Smith considers that the best attendants are those who have been in the army as soldiers or bandsmen, and he attributes the difficulty of getting suitable persons very much to the length of time they are daily on duty. Whilst we cordially agree with the latter portion of Dr. Smith's opinion, and consider the time attendants are on duty monstrously long, we think that few asylum superintendents will have found, like him, that bandsmen are, as a rule, good attendants. For one thing, they change at least three times as often as ordinary attendants. This, in itself, is a serious objection to their employment in asylums. There can be no doubt that a good band is a most desirable thing in an asylum, but its maintenance adds largely to the anxieties of the medical superintendent.

The farm attached is large, extending to 326 acres. No fewer than 231 men work on it.

Edinburgh Royal Asylum.—This is, as usual, a very carefully prepared report, and it records a great deal of work. It is the determination of the management to greatly increase the accommodation for the poorer middle classes. To do this about 170 paupers are to be handed over to the District Board for care elsewhere, and not more than 400 parish patients are to be in residence at one time. It will then be possible to admit a considerable number of patients paying from £30 to £45 per annum. This will be a great public boon.

Dr. Clouston makes some interesting remarks on periodicity in insanity, but they are too long for reproduction. So also as to his treatment of acute and feeble cases. Instead of stimulants and drugs he gives eggs and milk, sometimes in startling quantities. Eight pints of milk and sixteen eggs every day for three months must be considered heroic treatment. Cod-liver oil is very largely used; so is quinine.

Amongst those discharged recovered, six patients had been insane for five years, one for over seven, one over 11, and one over 21 years.

Many structural improvements have been effected, one of the most important being a new infirmary for female patients. The arrangements proposed by Dr. Clouston for its administration are admirable, and we reproduce his remarks in order that his example may be widely followed.

"In future it is to be the probationary ward and training school for all the new female attendants. They are to be sent there for a time at first to begin their work by learning to nurse the sick, and to look on all mentally affected patients as really sick. If anything will produce a habit of kindness and forbearance, this will be likely to do so, and I anticipate much good to result to the patients from this training and initiation of the attendants into their duties. To complete my idea of the proper working of a combined sick and probationary ward, we need annexed to it and worked along with it, and under the charge of the head nurse, a small ward for a few newly admitted, actively excited patients, not sick in the ordinary bodily sense, but, from a medical point of view, brain-sick, and needing exactly the same nursing, feeding, and attention. These patients will need single sleeping rooms and a small corridor for a day room near, but apart from, the bodily sick. We shall have a large staff to look after such patients, who will be individually responsible for each patient. Most such cases have quiet intervals, and then they will be sent to the sick ward proper. When they would disturb the patients there, they will be placed in this supplementary annexe. To have many such together, they would irritate each other, and I could not carry out the principle of individualization. Therefore six is the most I would wish provision made for, and I anticipate only to have two or three very actively excited recent cases. It fortunately happens that on the north side of the same building we can get exactly the thing I want with small and inexpensive structural change. The feeling, above all others, I

would like to instil into our attendants, is that feeling of professional interest in their work and pride in it, which a doctor has, and which an educated trained nurse has."

Fife and Kinross.—No fewer than 21 chronic cases were boarded out during the year. This has afforded great relief to the asylum accommodation, and shows what really can be done in this direction when an effort is made.

Glamorgan.—The infirmary wards have been enlarged, thus greatly facilitating the nursing and care of the sick. They are now brought together into one large room, instead of being, as formerly, scattered over the various wards. This is undoubtedly a great improvement.

The night attendance is good. There are four attendants on each side. Two have the care of the suicidal and epileptic patients, one of the sick, and one of the wards generally.

Glasgow Royal Asylum, Gartnavel.—It continues to be directed with marked success. Pauper patients are being sent elsewhere, and the accommodation thus obtained is used for the reception of private patients paying low rates.

Now that the institution has escaped from its financial embarrassments, a fund is being collected for the providing of pensions to the officers. This is a most important step in the right direction.

Hants.—Important enlargements are proposed at an estimated cost of about £12,000.

This is one of the few English reports which do not include that by the Commissioners. This is an omission it would be well to supply, though it will be allowed by those who know this well-managed asylum that official confirmation is not required.

Hereford.—Dr. Chapman reports that: "Since the early spring season, it has been the rule for every patient to walk daily (weather permitting) round the asylum grounds. The only exceptions being those whose employments involve abundant exercise, or whose bodily health is such as to forbid it. This habit cannot but have a most beneficial effect on the general health."

Such an arrangement does good not only to the patients but to the nurses and attendants.

Inverness.—Important structural alterations and additions are in contemplation. These, when carried out, will relieve the over-crowding of the wards, and remedy the other defects at present complained of.

During the ten years 1871-81, there has been a very marked increase in the number of patients requiring asylum-treatment.

The sanitary state was anything but satisfactory. Dr. Aitken reports that "there was a tendency to the formation of abscesses, an inclination to the slightest abrasion taking on an erysipelatous form, and throughout the whole course of the year the establishment has never been free from erysipelas and diarrhœa."

We would urge the adoption of the statistical tables recommended by our Association.

Isle of Man.—Improved arrangements for the extinction of fire have been made, but not before a narrow escape from a very serious disaster. A fire broke out in the female division. Fortunately the night nurse was at hand and extinguished it before any damage was done.

The proposed enlargement of the asylum, so urgently required, has occasioned some difference of opinion between the asylum committee and a committee of the House of Keys. It is suggested that the Home Secretary should be asked to name a competent person to advise as to the amount of accommodation needed, and the most advantageous mode of providing it.

Kent. Chartham Downs.—In this case also the entry by the Commissioners does not form part of the annual report. We think this is a pity.

Killarney.—Dr. Woods reports that some much-needed improvements were effected during the year, but he also points out the absolute necessity of improving the heating of the building. He says:—"The heating of the asylum in winter has always given much trouble. It is almost impossible to keep up a proper temperature; and, frequently, on the coldest days, the fires have to be put out to prevent an accumulation of smoke through the house. Everything has been tried to abate this nuisance, but nothing has been of any avail. The Inspectors have recommended that the wards should be heated with hot-water pipes; and I hope, before long, to be able to lay before you some plans on the subject. I should not be at all surprised if the works could be carried out so as to effect a considerable saving. Our present consumption of coal is very large, being three tons a week in winter."

For an asylum containing some 310 patients, we cannot look upon three tons of coal per week as excessive in amount; indeed, we cannot believe our eyes as we read the statement. In table 28 the annual consumption of coal is given as 347 tons. If that represents the total amount of fuel burnt, we do not wonder the wards are cold. Surely peat must be largely used, but it does not appear as an item of expenditure. We would strongly advise the adoption of the suggestion by the Inspectors that the wards should be heated by hot-water pipes.

Lancashire. Lancaster.—A complete system of draining the whole asylum is nearly completed.

It appears remarkable that when a patient required the performance of the operation of ovariatomy, it should be necessary to send her to Birmingham. Was there not in Lancashire one surgeon able and willing to do it?

Dr. Cassidy reports a curious accident. A male patient was crossing an airing-court when his foot slipped and he fell. He was unable to rise unassisted, and on being examined was found to have fractured a rib, and the skin was crepitant from escape of air from the lung into

the cellular tissue. He fell on a plane surface, and was said to have fallen backwards.

Dr. Cassidy has made various changes, with the express object that the patients may have more freedom, more out-door life, and more work. His efforts could not be better directed.

Lancashire. Prestwich—We extract the following paragraph from the Commissioners' report on this asylum for the purpose of bringing under the notice of all medical superintendents the importance of ascertaining the character of the workhouse to which they consign lunatics when they send them to the union. While we have always maintained that there are workhouses where incurable lunatics may very properly be placed, there are others which are totally unfit; and in any case the greatest care must be taken in selection. We fear, however, that patients will be spoilt for the most comfortable workhouse when the accommodation they have had resembles the hall of a large country house. The Commissioners say:—

"We learn that out of the 88 patients who have been discharged 'relieved,' 71 have been sent to their respective workhouses as fit cases to be received in them; but we are not astonished to learn that many have to be sent back again, having become unmanageable in the workhouse. A greater change can hardly be conceived than to the ordinary workhouse day-room from these wards—in the one the rule being whitewashed bare walls, stone floors, a hard bench to sit upon, with only at the best a pauper help to look after their wants; and in the other well warmed, clean, bright, cheerful wards, filled with flowers, plants, and ferns, the walls hung with pictures, stuffed benches and chairs for their use, with attendants accustomed to deal with insane patients, and able to understand their peculiarities. These remarks, of course, apply to those workhouses which have no insane wards; and we fear till marked improvement takes place in arrangements for the care of the insane of the chronic class in workhouses, so long will they be found impossible to be dealt with out of an Asylum, and remain at an increased expense to the ratepayers. The wards and dormitories here were in the best order, bright and cheerful, and No. 1 Ward on each side has been completed since the last visit, and bears more the appearance of the hall in a large country house than the ward of a Lunatic Asylum. We are glad to observe attendants and patients at work beginning alterations of a similar character in Wards 2 and 3 on the female side, and when these are finished, the corresponding wards on the male side will be altered in like manner. It is satisfactory to add that all these great improvements are executed solely by patients' labour, superintended by skilled artizan attendants, whilst all the furniture, fern cases, &c., are obtained by the same means, as well as the busts and pottery which adorn the walls. We cannot too highly express our gratification at the appearance the wards, even those occupied by the destructive patients, presented; and we must add that we are astonished to find that all this is done at a cost of no more

than 8s. 2d. per week per head We doubt if any other asylum in the country has anything approaching to the comfort and even luxury provided here at such a rate."

Lancashire. Rainhill.—Dr. Rogers strongly urges upon his Visitors the necessity of providing a suitably arranged reception ward for each sex. The advantages to be derived from such an arrangement are self-evident.

Lancashire. Whittingham.—The annexe is already partly occupied, and various important additions have been made to gas-works, laundry, &c.

When some trifling defects have been made good it is expected that the heating apparatus will suffice, aided by open fire places, to keep the whole building at a comfortable temperature during even the coldest weather.

Leicester and Rutland.—The proposal to remove this asylum to another site has been for the present abandoned.

It appears that there is a difficulty in securing patients to benefit by the charity fund. We therefore cordially agree with the Commissioners when they say that they think that if the separation between the charity and pauper patients were more distinct, there would be no vacant beds, as the class of applicants would be thereby much enlarged, many now objecting to degrade themselves by associating their insane relations with others far below them in social rank.

Limerick.—Important structural alterations continue to be made; all tending to bring the asylum up to a high modern standard. One of the Inspectors pays it a high compliment when he says: "In no similar institution in this country is there a better supply of clothing of all descriptions—both personal and other."

Lincoln.—Important additions have been made to the ward accommodation, as it had been necessary for some time to board about 40 patients in another asylum. Warned by a fatal case of typhoid, the whole sewage arrangements have been modernised with marked benefit.

Lincoln Lunatic Hospital.—It is reported by the chairman that the Commissioners say that this Hospital only requires publicity to ensure its filling. Of this we have no doubt.

It would be well if the trustees published the reports by the Commissioners in full, and allowed the medical superintendent to be heard in public as is done in all other lunatic hospitals.

Middlesex. Hanwell.—The Visitors report that during the last ten years the average increase of pauper lunatics in the county has been 343. Although a new asylum was built less than five years ago, many applications for admission to Hanwell have to be refused, and the Committee do not see any way of increasing the accommodation there to any appreciable extent.

An additional medical officer has very properly been appointed. There are now two superintendents, four assistant medical officers and

an apothecary. Even this medical staff is too small. When the number and character of the cases under treatment are considered, the very onerous duties of the medical staff must be evident, especially if any scientific work is to be done.

Dr. Rayner continues to make special and laudable efforts to employ troublesome and destructive men. He says:—

"The roller and pumping parties, at which those are employed who are too destructive or excitable to be trusted with tools, have been specially successful. In one instance which may be quoted as an example, a patient, who for years had been constantly destructive and violent, since his employment with the roller, has been destructive only on the days when there has been no work."

Middlesex. Banstead.—Important additions have been completed and others are contemplated for the accommodation of 200 male and 250 female patients.

At the time of the Commissioners' visit there were 1,701 patients on the books. The medical staff consisted of the medical superintendent and two assistant medical officers. We do not wonder at the very strong expression of opinion by the Commissioners that another medical officer should be appointed. It cannot be denied that one of the blots on asylum administration in England is the insufficiency (not inefficiency) of the medical staff.

Dr. Claye Shaw continues to speak favourably of his plan of associating a certain number of acute and suicidal cases with the chronic and demented.

Monmouth, &c.—It is extremely creditable to Dr. McCullough that he should succeed in maintaining his asylum in such a high state of efficiency at so small a cost.

Tenders have been accepted for the erection of new buildings, and the work is already in hand. The estimated cost is £42,000.

Montrose.—The following cases reported by Dr. Howden show that asylum-physicians should never despair of their patients' recovery. Although we often enough see patients recover after four or five years, it is very seldom indeed that recovery occurs after 21 years' residence in an asylum. But let us live in hope; if we work as scientific physicians we may yet succeed in imitating the methods of nature and restore to reason some apparently hopeless cases.

Dr. Howden says:—

"The recoveries (54) are in the proportion of 44 per cent. to the admissions, 45 had been less than a year under treatment, 6 two years, 1 four, 1 nine, and 1 no less than 21 years. The histories of the last two cases are instructive. The first was that of a young woman who laboured under violent mania on admission. She continued in a very excited state for about six years and then gradually sunk into a condition of apparent imbecility, from which there seemed little prospect of her ever emerging. Contrary to expectation, however, in about eighteen months she began to waken up; at first her conversation was

very limited and her capacity for work equally so; slowly, however, her intelligence and former active habits returned, and eventually she was discharged quite recovered. The variations in the weight of the body at the various stages of illness in this patient were remarkable. When admitted she weighed 109 lbs.; during the first two months of the excited period she lost 5 lbs., and continued to lose weight for long after; Cod liver oil and extra diet were administered, and as the excitement passed off, and the apparently fatuous stage set in, she became rapidly very stout, and continued so till her discharge, when she weighed 180lbs., or over five stone more than when she was admitted. The other case was that of a man admitted in 1860, labouring under deep melancholia accompanied by many delusions. Two years after admission he was reported to be demented, and it is noted that 'he rarely speaks;' in 1864 he is said to be 'quite demented and dumb.' In 1868 he appeared to be in the same condition mentally, but he had begun to assist the attendants in house work. In 1870, when suffering from pain (as from toothache or colic) he spoke, but when he got better he was again demented. In April, 1875, he began to speak in a barely audible whisper, and continued to do so for several months. His normal power of speech and intelligence were then gradually restored, and in 1878 he was able to work at his trade in the Asylum workshop. *It was evidently an error to suppose that during the dumb stage of his illness he was demented in the ordinary acceptation of the term*, for during the latter part of it at any rate, he did intelligently what he was told, and though he did not speak, he expressed his wants by signs and sometimes in writing. On recovery, thirteen years seemed to have been a complete blank in his existence, and on leaving, it appeared to him that he had been only six or seven years in the asylum. His loss of speech did not seem to have arisen from want of memory of words or their meaning, nor from paralysis of the muscles employed in articulation, *but from a nervous feeling that he had not the power to give expression to his thoughts in articulate sounds.*"

The extraordinary thing is that there should have been a complete blank in the man's existence; as there would seem to have been a state of "mental stupor with melancholia" rather than pure "mental stupor" *alias* (so called) acute dementia.

Norfolk.—A fire occurred in the laundry through the overheating of a drying closet. It was extinguished in twenty minutes, thus proving the efficiency of the fire arrangements.

The Commissioners comment upon the presence of a large number of idiot lads in the male wards and express the wish that they could see any prospect of pauper idiot-asylums being built, where children might be sent and taught some useful trade.

Northampton.—Dr. Greene is to be congratulated on the very substantial increase of his salary. It is unfortunately not every medical superintendent who receives an advance of £250.

Northumberland.—In connection with impending changes in lunacy legislation, Dr. McDowall makes the following remarks on private asylums. With these remarks we cordially agree. Simply to extinguish them by Act of Parliament would be a great mistake.

"Important lunacy legislation will soon engage the attention of Parliament; but as its scope is still unknown, I need not further refer to it than by expressing a hope that the Lunacy Bill will make some provision for the care and treatment of the insane of the poorer middle classes. On them mental derangement falls as a crushing calamity. The patient possibly loses his business or situation, and his prospects in life may be permanently damaged. The relatives necessarily suffer, though in a different way. During his illness their income often disappears, yet, at the same time, they are called upon to pay heavy charges for his maintenance in a private asylum. There thus arises a degree of domestic affliction only to be understood by those who have witnessed it. A private asylum is in one respect a business speculation, and the proprietor, of course, does his best to secure as good a return on his capital as is consistent with his duty to his patient. To the rich this is no hardship, and it would be a mistake to suppress those private institutions which receive patients from the wealthy classes. For other reasons it would be a mistake to buy out the proprietors of middle-class asylums, thereby securing their extinction. What is wanted is competition. A public institution, if well conducted, would speedily attract to it all cases in which, as it is said, money is a consideration, and the inferior private asylums would disappear. Were the three or four northern counties united into a district, and an asylum for say 200 patients built at public cost, in which the charges varied from £1 to £3 per week, the money invested would in the course of some 30 years be repaid with interest, and an asylum would be provided which would relieve in various ways the sufferings of a struggling class of the community."

Norwich (*City and Borough*).—This is the first annual report. Numerous important and troublesome defects in construction and arrangement were discovered when the building came into use, but these have been mostly made good or are in process of being made so.

The Commissioners in their report (1881) refer to twin sisters, one in this, and the other in the County Asylum. As such cases attract special interest at present, we should be glad to have their history published in this Journal in the form of a clinical note.

Nottingham (*Borough*).—This new asylum is already full, and its enlargement is under consideration. A detached hospital is to be erected for the isolation of patients suffering from infectious diseases.

Nottingham Lunatic Hospital (*The Coppice*).—This admirable charity continues to be administered most successfully. At the end of the year additional accommodation for the care of 20 patients of each sex was nearly complete.

Oxford.—Although several resignations occurred during the year,

in only one instance is it stated that a retiring allowance was granted. The head female attendant resigned after 18 years' service, and the head laundress after 31 years' service, but no mention is made of a pension having been granted to these persons.

Portsmouth.—The dormitories for epileptic and suicidal patients are now under continuous supervision.

We agree with the Commissioners in considering the wages of the attendants and nurses too low. Liberal wages, by securing the services of good servants, are, as a rule, true economy.

Richmond Asylum, Dublin.—In remarking on the changes in treatment which have been effected since his appointment in 1857, Dr. Lalor congratulates himself on the total disuse of restraint, and that seclusion and the use of single rooms have almost disappeared.

Contrary to the general opinion, he does not disapprove of the presence of idiot children in a county asylum. In connection with his system of education, and of industrial and recreative pursuits, he says :—"I think it right to state that they are carried out on the same principles, and with the same details that are applied, and have proved so successful in special idiot asylums, and which are theoretically and practically suited to all forms of mental defect. The association thus carried out of idiots with other classes of insane is not found to have injurious effect on either class; and I am convinced, from long experience, that, on the contrary, it is rather useful than otherwise, and, everything considered, it appears to me that there is no necessity or advantage in having the treatment of the two classes of the insane carried out in separate asylums, and the experience of this Institution rather supports an opposite view."

Though we venture to differ from Dr. Lalor in this point, we cannot too highly commend his continuous efforts to carry out his system of teaching in the asylum. The interest of the Richmond Asylum Schools does not consist so much in the education of idiots as in the mental occupation of the insane.

Roxburgh, &c.—This asylum being full, it is proposed to discharge the private patients to make room for paupers. To do this may be a strictly legal proceeding, but it is to be commended for no other reason. We, therefore, heartily sympathise with Dr. Grierson when he pleads for the retention of these cases. He says :—"At the risk of being thought importunate, I would venture anew to bespeak a kindly consideration for this class of cases, for the twofold reason, firstly, that the relief gained by their exclusion is largely illusory, as partly illustrated in the preceding sentence, namely, that they, at best, are on the verge of pauperism, and ready, without the threat of removal, to drop thereto; and secondly, that the stigma of pauperism might be withheld as long as possible from the relations or friends who now, by the exercise of a laudable self-denial, have kept themselves above the level of their class. I say nothing of the benefit to the asylum arising from the difference in the amount paid by the two classes, though that now,

and in the past, as is well known to you, has been not a little; and equally, while it may not be so easily an estimated one, that of having a few of the better educated moving about among us is not without its influence upon both the directing and directed members of the household, I have not any doubt."

Royal Albert Asylum.—A hospital for the treatment of contagious diseases is specially necessary in an idiot asylum. Such a building is now nearly completed here through the munificence of a gentleman who presented £4,000 for the purpose. The administration of this institution continues to be highly creditable to Dr. Shuttleworth.

St. Andrew's Hospital.—Important alterations have been effected in the building; and the asylum property has been added to at the cost of several thousand pounds.

In his report Mr. Bayley points out that the institution runs the risk of being diverted from its proper function. It is really intended for the reception and treatment of acute and curable cases of brain disease; but at the end of the year, out of 310 patients only seven males and 16 females could be looked upon as curable. This is a very remarkable state of affairs.

Salop and Montgomery.—Plans have at length been prepared for the much needed enlargement and improvement of this asylum. It is not often that a medical superintendent has to describe, as Dr. Strange does, "the machinery, workshops, and laundry in a state of decay deplorable to behold."

Great difficulty has been experienced in rearing good attendants, and several were discharged as highly unsatisfactory. Dr. Strange strongly condemns the short service men as being entirely unfit for asylum work.

To relieve overcrowding, 30 patients, not recovered but "relieved," were discharged to the custody of their friends.

Somerset and Bath.—Dr. Medlicott having ceased to be superintendent, his successor, Dr. Wade indicates in this, his first report, various changes which he considers will add to the efficiency of the asylum. His opinion of the effect of the discontinuance of beer is referred to in "Notes of the Quarter."

Staffordshire. Burntwood.—The supervision of epileptic and suicidal patients has been improved. By slight structural alterations it might be made quite satisfactory.

Staffordshire. Stafford.—Twenty-eight acres have been added to the asylum property. Plans have been prepared for buildings to accommodate 150 patients at an estimated cost of about £33,000.

Suffolk.—During 1881 the asylum was greatly overcrowded and its sanitary condition most alarming. Twenty-one deaths occurred from diarrhœa. This disease prevailed during the year to such an extent as greatly to embarrass the ordinary working of the establishment. Efforts have been made to discover the cause of this and other pre-

ventible diseases, but, strange to say, with only partial success. From the details given by Mr. Eager it seems, however, almost certain that sewage is percolating into the well.

Plans for extensive enlargements have been prepared, but the buildings will not be proceeded with so long as so much sickness prevails. In the opinion of Mr Eager, and we agree with him generally, the proposed arrangements might be improved.

Surrey. Brookwood.—In this report Dr. Brushfield takes leave of his asylum, and briefly reviews his work therein during the 16 years he held office. It is greatly to be regretted that impaired health has compelled him to give up the direction of an asylum which reflects so much credit on his management. His retirement was commented upon at the time in this Journal.

Surrey. Wandsworth.—Several important alterations and additions have been made. The chief of these is a chapel with 680 sittings.

Gratuities to attendants for good conduct continue to be, so far as we know, peculiar to this asylum.

Sussex.—It would appear as if some steps must be taken to provide further accommodation for the lunatics of this county. In Dr. Williams's opinion the present asylum cannot with advantage be further enlarged. Is Dr. Williams as sanguine as he once was, as to largely relieving County Asylums by sending harmless cases back to their friends, and so saving the rates?

Five acres of land and five cottages have been added to the asylum property.

In his remarks upon the employment of patients, Dr. Williams shows that he at least does not neglect this, the chief form of remedial treatment. It is not improbable that as much as possible is made of what is done in some Scotch (not to say some English) asylums, but it does not admit of a doubt that lunacy administration in the north has given a great impetus to the outdoor employment of the insane. Were it not from a pretty well founded fear of incurring official disfavour, some superintendents of English asylums would be willing to incur greater risks than they do by employing both suicidal and dangerous patients on the farm.

On the women's side two nurses are boarded by the Committee, and paid for by a benevolent lady, to train them for attendance on private mental cases elsewhere. This is a most admirable arrangement, which might advantageously be imitated in other county asylums.

Warneford Asylum, Oxford.—This useful charity does not appear to be as well known as it ought to be, else it would be impossible that there should have been 15 vacancies at the date of one of the visits by the Commissioners.

Warwick.—Any remarks by Dr. Parsey on asylum management demand attention. His is now a long experience, and an eminently

successful one. We therefore reproduce the following paragraph relating to the open-door form of treatment. It is quite true that the increased liability to serious accidents frightens many men who theoretically approve of the method :—

"I have watched with much interest the records of a system of general treatment which at present finds much favour in the northern division of this kingdom, the leading features of which consist in an extreme extension of the personal liberty of the inmates of an asylum by the removal of all locks, fenced airing courts, and other impediments to their free movement throughout the establishment, and in a possibly somewhat overstrained development of outdoor industrial occupations among them. The results have proved the practicability of this system; but two elements essential to its success appear to be (1) an asylum of sufficiently moderate size to enable the chief officer or his immediate subordinates to have an intimate personal knowledge of the mental and physical idiosyncrasy of each individual patient under his charge; and (2) a staff of assistants of exceptional intelligence, vigilance, and trustworthiness. Many of the older superintendents of English asylums must look back with regret to the time when the numbers in their own asylums enabled them to acquire this very desirable intimate knowledge of their charge, but progressive enlargements, and in many counties to proportions utterly beyond the possibility of such knowledge being attainable, would in such institutions stamp with hopelessness the experiment carried to the extremes attempted in some Scotch asylums.

"Nor is it yet proved that even in these smaller asylums of Scotland, where the success achieved is considered most marked, the system is altogether in advance of that long in force in a large proportion of the English asylums, where, though a very great amount of personal liberty and of industrial occupation are among the leading features of management, it has not been deemed desirable to remove all locks, nor to do away with airing courts as adjuncts to the more extended exercise of the patients in the general grounds of the asylum, or in the surrounding neighbourhood. Among the primary considerations in the care of the insane a due regard for the personal safety and safe-keeping of themselves, and of the safety and comfort of their guardians, should be at least concurrent with any extraordinary extension of their personal liberty and freedom of action; but in this most advanced movement in the progressive changes in asylum life a weak point of some gravity is indicated by the much larger proportion of escapes, accidents, and suicides that have been experienced than in the system out of which it has immediately sprung, and of which it may be considered a somewhat advanced development."

Waterford.—It is a very favourable indication of the system of management of this asylum that during the year no change occurred in the subordinate staff except in the case of one nurse, who resigned on account of illness.

2. *Danish Retrospect.*

By Dr. T. W. McDowall, County Asylum, Morpeth.

1. Beretninger om den Kjöbenhavnske, den Nörrejyske, Ostifternes og den Viborgske Sindssygeanstalt i 1880.
2. Om Sindssygeforplejningen Ude og Hjemme. Kristian Helweg.
3. Om Danmark's Sindsygevæsen. ved Dr. Vald. Steenberg.

1. This small pamphlet of 82 pages is the official statement of the condition of the Danish asylums. There are no Lunacy Commissioners in Denmark, but three of the medical superintendents are Government officials, and the fourth is responsible to the Copenhagen Commune. The reports contain little but statistical information, and are not of general interest.

The only fact worth noticing is that all the asylums are full, some of them much overcrowded. In the report of the St. Hans Hospital, prepared by Dr. Steenberg, it is noted that the admissions had been very few, which had been a great comfort, as the block for recent cases was overcrowded. This building, the Kurhus, is, of course, the part of the asylum where the inconveniences of overcrowding are most felt, as many of the patients required special care, and many cases, although chronic, were suffering from recurrent attacks of acute excitement, so could not be sent to the wards for chronics until the symptoms had abated. Although the Kurhus was intended for only 63 males and 74 females, during the last eight years the daily numbers have been 84 and 87·5 respectively. At the date of the report a new block was nearly ready for occupation, but it is calculated that it will be full in five years.

St. Hans Hospital is the largest asylum in Denmark. During 1880 there were 188 admissions, 116 discharges, and 61 deaths.

The following remarks by Dr. Steenberg on relapsed cases are worthy of attention, though they may not command unconditional assent : —

"Nearly the half—that is, six—of these 13 relapses were caused exclusively by their own drunkenness. One is rather apt to think that all brain diseases, and especially all the forms of insanity, are more apt to recur than diseases of other organs. This is an opinion which is fraught with much harm and disadvantage to recovered patients, as people so often fear to take them into their homes and service, dreading a sudden return of the illness, even when not the slightest symptom remains from the former attack. Great attention should therefore be paid to the fact, so clearly demonstrated year by year at this hospital, that an acute case of insanity occurring in an otherwise healthy person can, as a rule, be perfectly cured, so that the patient is never afterwards attacked by a similar illness; nay, never afterwards feels even the least reminder that he once was insane. Further, a considerable proportion of the relapses which do occur are

not caused by the nature of the disease, but by the patient himself, either because he again finds himself involuntarily in the same unfavourable circumstances—poverty, loss of work, household cares, &c.—which produced the first attack, or because he voluntarily resigns himself to his former evil habits, of which doubtless drunkenness is the commonest. Of the 13 readmissions, six were, as already stated, due to drunkenness ; four were hereditary (two of them very markedly so) ; one was an epileptic ; one caused by love disappointments ; one a case of folie circulaire."

Although it is undoubtedly advantageous to the patients that they can be taken to the Commune Hospital in Copenhagen immediately their illness necessitates their removal from home, and can then be transferred to St. Hans when the necessary formalities have been completed, it is distinctly disadvantageous to the asylum physicians, as they are compelled to take all information respecting the patient from one of the hospital physicians, and cannot get it from his own doctor.

Syphilis is a large factor in the production of insanity, chiefly general paralysis. In no fewer than 30 of the admissions is this set down as the cause.

A sad case of suicide occurred. The patient was discharged. When his son came to remove him he complained of loss of appetite, and begged to be allowed to remain until he felt better. This was granted. Three days afterwards he seemed to be cheerful, and said he felt quite well. An hour afterwards he jumped out of a window in his shirt, and 11 days afterwards his body was recovered, he having hanged himself.

There are two features of Danish asylums specially worthy of notice. One is the presence of clinical clerks in all of them. These appointments are eagerly sought after, as there are various Government appointments which cannot be held unless the candidate has had some three or six months' asylum experience. The other feature is the bathing of the patients in the sea. All the asylums are within easy distance of the beach, being built close to one or other of those beautiful fiords so numerous there. At St. Hans the bathing began on the 27th May, and concluded on the 11th October. That gives 138 days, and in that time 17,404 sea-baths were taken in all—8,208 by male patients, 7,196 by females, and 2,000 by attendants and others.

2. *On the Treatment of the Insane at Home and Abroad.*

Although the Commune of Copenhagen has provided adequate asylum accommodation for its insane, there is great deficiency in this respect throughout the rest of Denmark. Until 1877 there were only other two asylums, but they were quite inadequate to the demands made on them, and though another asylum was opened at Viborg in 1877 for 300 incurable cases, the relief was only temporary.

At Aarhus and Vordinborg, the two State asylums, only presumedly curable cases can be admitted, and these must wait until there is room, to the great loss and annoyance of all concerned.

It is admitted that more asylum accommodation is required. The question is, How shall it be arranged? In this pamphlet it is discussed at great length by Dr. Helweg. Much of what he says we need not notice, as he writes not for specialists, but for the public, and thus necessarily goes into details with which we are quite familiar. He also necessarily devotes much attention to the financial aspect of the question, for in a small and poor country it is highly important that the buildings should be as cheap as possible, and the cost of maintenance as low as is consistent with rational treatment; indeed, Dr. Helweg seems to look for what, we fear, he will never find—a system which will be self-supporting.

As many acute and troublesome cases are necessarily detained at home, objectional forms of restraint and seclusion are employed for the ease and comfort of those compelled to take care of them. So it has been in all countries, not from any desire to be cruel, but simply from ignorance and indolence.

In his sketch of what Danish asylums are and ought to be, Dr. Helweg, as a rule, confines himself to comparing them with German ones. This is natural enough, as the races are in many points very similar—indeed, closely related—so that what works well in one country will probably succeed in the other. Besides, in Germany there is now to be found one or more examples of all kinds of asylum buildings and management.

The State-asylums in Denmark were built for curable cases only, and the period of residence was limited to one or two years, when unrecovered cases were discharged and kept in workhouses, gaols, or any other place where they could be put. In building the asylums at Aarhus and Vordingborg the idea was that lunatics were patients whose brains required rest, so the asylums were divided into many wards, through which the patient had to work his way during convalescence. Treatment began by seclusion in a single room; then came smaller or larger wards, more or less locked up, when the patient was under strict discipline and gradually re-accustomed to work. Then came the really convalescent wards, with more liberty and sane and healthy life and impulses. Such was theoretically, and is still, the system of treatment pursued when I visited Vordingborg in 1876, though chronic and incurable cases were allowed to remain, and the asylums, so far as the population was concerned, had much the appearance observed in other countries. As has occurred everywhere, the chronic incurable cases gradually accumulated, and large additions had to be made to the buildings from time to time. It was found that the presence of chronic cases, far from being in any way injurious, was really beneficial in all respects. It was economical, convenient, and diminished excitement.

In discussing how to afford as much liberty as possible to the best class of chronic cases, Gheel and Clermont are described. The advantages and disadvantages of these places are carefully pointed out, but with these we are already familiar. A Russian, Dr. Cyon, is quoted with evident approbation, who considers that for what they get for the money, Gheel is two or three times dearer than the dearest English asylum.

Dr. Helweg approves of the Scotch boarding-out system, and the residence of harmless cases in attendants' families, as is done in some English asylums. In speaking of the Scotch system, he says :—

"Prof. Jolly, of Strasburg, who has a great admiration for it, says that as a rule the patients do hardly any work, just enough to pass the time, and he thinks this an advantage, as those in charge are not tempted to overwork them. But if we add this quality of idleness to their other qualities of quietness and docility, and then seek in our asylums for similar patients, we are in this difficulty, that we cannot find them, for in all good asylums nearly every patient can be induced to work, and certainly all quiet, docile patients are very diligent. I therefore think that if the 1,500 lunatics wandering about idle in Scotch villages were in asylums they would be diligent, useful persons, and I further believe that if we sent our good workers to board in private families they would deteriorate. If a State desires to do something for all its lunatics, but cannot afford to build asylums for them, then the Scotch system may be very good. In England, where it met with some scepticism first, it is now spoken of with approbation ; but in England people seem to have an exaggerated desire to let patients at all times be as comfortable as possible, and to follow their own will, be it a sound or an unsound one. In other countries one seeks another goal—one wishes to keep up the higher faculties as much as possible even in chronic lunatics, and one of our best means for this is work, though it may be a medicine very distasteful to the patients, and one which we must tempt or force him to use." See the opinions entertained about us abroad !

The agricultural colonies in Germany are described, especially the one at Colditz. Its arrangements are praised, and its financial success much lauded.

The proposal that there should always be a division for recent cases, where the arrangements are as nearly as possible those of an ordinary hospital, is sensible, but some of the anticipated results are too fanciful, and have not been obtainable where the method has been tried.

The State-asylums remain essentially as they were arranged by Selmer in 1847. Dr. Helweg asks if they can be improved, and answers that the portion for excited and dangerous patients is as good as can be, but that improvement is possible in the arrangements for recently-admitted and for convalescent patients. The

condition of the insane in private dwellings also requires attention. It is estimated that there are about 3,000.

It being admitted that more asylum accommodation is required, the point at issue is, What form shall it assume? Shall the old asylums be enlarged or new ones built? The latter plan is supported, and we have the usual sermon about the necessity of small asylums, so that the doctors may do scientific work. Is it not the fact that in many cases the best scientific and other work has been done by physicians in charge of the largest asylums?

If new asylums are to be built, where are they to be placed. Instead of advising the country to be divided into districts and an asylum built for each, it is recommended that asylums for different kinds of patients should be built—for recent cases, able-bodied chronics, and hopeless dements—and that an extensive system of transfer should be carried on, in the belief that change of residence will in many cases be beneficial. We think that Dr. Helweg greatly overrates the possible advantages of this method. When Viborg Asylum was opened he was appointed to it, and went there from Vordinborg Asylum, where he had been one year. He therefore knew all the patients, about 110, who were transferred from the one asylum to the other, and he was much struck by the change it produced in many. The effect was in general immediate. In some the improvement was short-lived, but others continued to improve, and became useful people, and two were discharged recovered. All these patients were in the lowest stage of dementia.

The so-called extravagance of English and French asylums is condemned, and an incredible story is told about the asylum at Cologne. It is to the effect that so much was wasted on a large dining-hall and church that it has been necessary to restrict the patients' food!

There are some other points we would have noticed, but space does not permit. It is evident throughout the pamphlet that Dr. Helweg has not visited any English or Scotch asylum. If he would do so, he would find that in them the patients are as industrious as the Danish, and that they are encouraged to work, not with the object of saving money, but as the best way to recover their mental soundness and to maintain themselves in good bodily health. The decoration and other trifles which help to remove the bareness of a ward, so conspicuous by their absence in Danish asylums, cost really very little in English ones. They are largely carried on by patients' labour, and are of great benefit in many ways.

3. *Danish Lunacy Administration.* By Dr. V. Steenberg.

This pamphlet may be considered as an answer to the preceding. On many points he agrees with Dr. Helweg, but in others he argues well, and, we think, successfully, for his own views. This pamphlet is evidently the work of an able man, one who knows his own work

thoroughly, and has used his eyes and ears when he was abroad in foreign asylums. His views so thoroughly coincide with those prevalent in Britain that we do not trouble to go into them in detail, but content ourselves by reproducing the following about the open-door system. It affords another proof of what an able man may do on his own responsibility, without any official assistance and patronage, as has occurred in Scotland. The only point in which we differ from Dr. Steenberg is as to the position of his farm and auxiliary asylum. One mile (that is, three English) is unnecessarily far away. A quarter of an English mile is quite enough. Witness the detached building at Wakefield, Ivy House. There the men enjoy as much liberty as if they were 100 miles away from the parent asylum. We cordially approve Dr. Steenberg's system of detached blocks, though we would not put a dining-hall in a sunk flat. It permits of systematic classification, a point in which all asylums fail, to the great curtailment of the amount of liberty accorded to many patients.

"'Closed asylums are but gilded prisons for our patients.' This is perfectly true. I suppose that nowhere is so much misery congregated as in an asylum, and yet in all the years I have been connected with asylums nothing has ever awakened my sympathies so much as the daily sight of so many persons deprived of their liberty. For a long time I could not reconcile myself to the thought of the justice, the necessity, of depriving all these quiet, harmless people of their liberty, and after experience had taught me that even the best patients required a certain amount of supervision and control, I have looked upon it as one of my life's chief objects to let them feel this control as little as possible, and to give them as much liberty as possible. Owing to this division of curable and incurable I have been able to give those patients most suited for it, the chronic, so much liberty that I can say that St. Hans is not surpassed in this respect by any other asylum in the world.

"All mixed asylums consist of various wings, so constructed that they form one continuous whole. They are cut off from the rest of the world by enclosed gardens, so that no one can approach a ward without permission. . . . All these arrangements are excellent for acute cases, and are carried out in our 'hospital,' but are quite unnecessary for chronic cases, increasing the prison-like appearance of their dwelling. Therefore, in the annexes no gatekeeper is required, for the gate is always open ; anyone can enter the grounds without being questioned, and every Sunday during summer the hospital is passed by many without being stopped by an attendant. The front of all the annexes looks upon the high road, so that the patients can see, and partly be seen by, all the passers, which to many patients is no small pleasure. A foreigner once came up to me and told me that he only knew asylums from descriptions in English novels, so he had been under the impression that they were privileged gaols, which, of course, contained some lunatics, but also a good many who were kept to con-

ceal some crime, but that now he was of a different opinion, at least in regard to St. Hans, because, without asking anyone's leave, he had walked about, and could have spoken to many patients if he had been able to understand their language.

"Dr. Helweg says :—'Here at Aarhus the industrious, quiet patients, capital workmen, among whom escapes are rare, have to pass through three or four locked doors to go to and from their work.' Here in St. Hans the same class of patients (about 120) need not go through a single locked door. These patients pass their leisure in a large finely-wooded garden, surrounded by a low, light railing, to which the doors are not locked, neither the one leading to the ward, nor the one leading to the field. As to escapes? Of course a patient does escape occasionally, but not more frequently than from the mixed asylum, and these escape from the wards which should be the safest, by reason of locked doors and a large number of attendants. It is well known that a lunatic's cunning and perseverance render him more difficult to guard than a sane man. I have had patients whom I could not prevent from escaping, until, fairly wearied out, I have transferred them to an open ward, where he had every opportunity to escape, and this confidence formed a chain he never tried to break. In England the open-door system is struggling to prevail; indeed, one English superintendent demands that an asylum should have no lock whatever, a proposition which only an Englishman could make. A Danish physician (not in asylum-practice) advised me to strive to attain so far that no lunatic should be sent to an asylum against his wish, and only the absolutely dangerous lunatics should be detained against their wish. We all agree that this would be very desirable, and I do not doubt that in the not far distant future this hope, somewhat modified, will be fulfilled. We all demand liberty for ourselves and fellows, and, as far as possible our insane should enjoy it."

PART IV.—NOTES AND NEWS.

THE MEDICO-PSYCHOLOGICAL ASSOCIATION.

The Quarterly Meeting of the Medico-Psychological Association was held at Bethlem Hospital, on Friday, 18th May, at 5 p.m. Dr. D. Hack Tuke presided, and there were also present :—Drs. A. J. Alliott, D. Bower, T. J. Compton, W. Clement Daniel, Bonville Fox, S. Forrest, J. Fenton, G. G. Gardiner, W. R. Huggard, O. Jepson, W. J. Mickle, F. Needham, H. H. Newington, W. Orange, J. H. Paul, W. H. Platt, H. Rayner, W. H. Roots, G. H. Savage, H. Sutherland, H. M. Sutherland, D. G. Thomson, C. M. Tuke, E. S. Willett, &c.

The following gentlemen were elected members of the Association, viz. :—

J. Wiglesworth, M.D.Lond., of the Rainhill Asylum; W. H. Macfarlane, M.B., Medl. Supt. of the New Norfolk Asylum, Tasmania; Robert Blair, M.D., Woodilee Asylum.

Dr. Sutherland read a paper "On Prognosis in Cases of Refusal of Food." (See Original Articles.)

Dr. Hack Tuke, in inviting discussion upon the paper, remarked that although the main subject was the prognosis in cases of refusal of food, yet the other points to which Dr. Sutherland had referred—the mode of administration, the cases in which it should be given, &c.—were points upon which practical men present ought to be able to give most useful hints.

Dr. Gardiner said that the refusal of food might be from two causes—from excessive obstinacy, or from some disordered condition of the stomach itself. Of course, in the first case it was absolutely necessary that the patient should be fed till he became better, and the obstinacy was overcome. As regards a disordered condition of the stomach, all nervous cases suffered more or less from dyspepsia, which sometimes arose from the injudicious use of alkalies. In certain cases the administration of alkalies was absolutely necessary, and they had all experienced the value of alkalies; but they must be always conscious of the fact that in cases of low nerve-power, the administration of alkalies would tend still further to lower the vitality. At the same time, they could not do without them. In the treatment of feeding-cases, he made it a great point to determine whether there was flatulency in the stomach. They could not always tell by touching the stomach, but there was an appearance which at once determined the presence of flatus, viz., a distension of the stomach: they would notice a kind of pyriform distension arising from the ensiform cartilage, and extending three or four inches down. It was the object of everyone to avoid feeding cases. He had often contented himself with the passing of a tube down, for the passing of the tube was frequently followed by a large expulsion of wind, quite enough to blow out a candle. That was plain proof that the stomach was pre-occupied—that it was so distended with flatulency that the patient had lost all desire; or even if he had the desire, his repugnance to increasing his pain would be so great that he would refuse food on that account. He would, therefore, strongly urge the passing of a tube three times a day, and encouraging the patient to take simple food, such as milk. And here he might say that he was in the habit of preparing his milk by suspending in it a lump of suet the size of an egg in a piece of muslin, and boiling it for ten minutes, which made the milk richer and more sustaining than milk alone; besides which the greasy nature of the milk would be more grateful. He had, in cases of acute dyspepsia, given milk of this kind with great benefit. But, having ascertained that the intestines and the stomach were loaded with flatus, what course was to be adopted? Of course, there was extract of belladonna, small doses of aloës or aloïn, &c. They had to increase the peristaltic action of the intestine by which the flatus might be discharged. The various mineral waters might be given with very great advantage, but they were too strong—too gross a remedy—to be given in delicate cases. He had found a single teaspoonful of carbonate of magnesia, given in a tumbler of warm water, do much good.

Dr. H. H. Newington said that he had found the sex to be the greatest aid to the prognosis. Many more incurable cases arose in the male than in the female. It would seem that when a man did take to refusing his food he did it with some object, whereas a woman would do it with no object at all—perhaps simply hysterically—and often after a time would give in. As regards the administration of food, people were too prone to administer the old round of beef tea, egg and milk, &c., leaving out lime juice and other things.

Dr. Rayner considered that they ought to pay due attention to the mental condition as well as to the mere physical state. They should endeavour, for instance, to find out whether a man refused food simply in obedience to an hallucination—as the result of an hallucination of taste—or whether he had some illusion dependent upon the physical condition of his stomach—or whether it was simply an abeyance of appetite as in melancholia—whether it had been

from actual anæsthesia of the nerves of the stomach—or whether it was the refusal from hysteria or from senile causes. All those considerations appeared to be of as much importance in forming prognosis as the physical conditions which had been dwelt upon. In regard to Dr. Sutherland's point as to the loss of flesh, he (Dr. Rayner) had had several cases which had become emaciated to the last extremity, and yet recovered. He remembered a woman at Bethlem who had been fed with the stomach pump for three years, and who for eighteen months of the time had certainly been a mere walking skeleton, and yet she recovered. Then again, where Dr. Sutherland had contended that the prognosis was bad when the patients gained flesh under the treatment, he could certainly call to mind cases of this kind which had recovered completely. Of course, as regards those slight cases which give up their refusal after they have been fed once, there could be no doubt that the prognosis would be good, and that their refusal was not founded upon a very firm basis. Dr. Newington's suggestion that the refusal of men was more stubborn than that of women was certainly borne out by his own experience. When he went from Bethlem to Hanwell he could not help being struck by the difference in regard to the food-refusal cases amongst the pauper insane, as compared with what he had been accustomed to at Bethlem. This difference was very striking, and he had no doubt that it was due to some extent to the degree of education—the more educated brain—when it did have a delusion—adhering to the delusion more firmly. With reference to the treatment of cases of refusal of food, he had a very strong feeling that rest in bed was one of the most potent elements of success in the early stages. He did not mean to say that if a patient had been refusing food for a long time, and had established a thorough habit, that this would have much effect; but in ordinary cases rest had a most important influence. He always took it that mere refusal of food indicated rest; and he had found the remedy so successful that he had been to a great extent able to do without the stomach pump.

Dr. Hack Tuke—How do you treat patients with acute excitement where you cannot possibly get them to rest in bed?

Dr. Rayner—In such cases we get the nearest approach to rest, by absence of light and sound, and the use of a padded room.

Dr. Savage said that to give a prognosis from one symptom was scarcely a scientific way of doing. In the case of a patient refusing food simply because he was suffering from phthisis—if the refusal were associated with some morbid feeling associated with phthisis, the prognosis would have nothing to do with the refusal to take food. Taking, too, what he called "aldermanic" cases with "herring-gutted," he should not like to say that one class of case was more curable than the other. The point of giving alkalies was noteworthy. There were a great many cases who refused to be fed because they could not, or would not, retain their food. No sooner was it passed into the stomach than it was returned. Immediately the operator passed the tube he received in his face the vilest smells. Their old attendants said, "You can never do any good with that case. You should have smelt what came out of their inside. They are rotten inside." He would be inclined in such cases to try some antiseptic, washing out the stomach first. In cases of prolonged feeding, he thought that many of the hysterical cases, having been got up to a certain weight, ought to be told that they would not be fed. Certainly, good sometimes resulted from refusing to feed. There was a mathematical master, a patient at Bethlem, who had got to like being fed, and actually used at last to mix up his own food; till one day, when the patient had got everything ready, Dr. Savage told him he should not be fed any longer, and that he would have to wait until he could feed himself. The patient only waited twenty-four hours. A great many patients were fed too long. At Bethlem they made a point of varying the feeding as much as possible, feeding sometimes by the nose, sometimes by the bowel, sometimes by the spoon, and

then neglecting them for a time. He was sure that the insane were very plastic, and got readily into habits. They would be very glad, as far as the Journal was concerned, to have cases in which organic disease had been found as the cause of the refusal to take food. They rarely got such cases. Perhaps once a year one would get a case in which they might think they could trace the cause. He had only once seen cancerous disease in this connection. He had seen ulceration of the duodenum associated with gall stone. It would be extremely important to get a well-marked case in which organic disease, such as cancer, was the cause. He would also like to know whether anyone there had tried the artificial foods—say peptonized foods.

Dr. MICKLE said that the conclusions Dr. Sutherland had drawn would be borne out by the experience of the majority of those present. There was one point in the paper which he had particularly noticed. He had understood Dr. Sutherland to say that the prognosis was bad if the patient increased in weight. He must say that that was not in accordance with his own particular experience. He remembered one case in which a patient refused food, and had to be fed. In three weeks the patient had gained eleven pounds in weight (and in all these cases it was very important to frequently weigh the patients). He (Dr. Mickle) said "I shall go on feeding you till you are so fat you cannot move." The patient immediately ceased refusing his food, and got on well. There was many a general paralytic who refused his food, but ceased to do so immediately after a good aperient injection. The condition of functional or of organic disease of the intestines or stomach was one that was not at all uncommonly present, whether in cases of general paralysis or in other cases. He had met with several cases in which organic disease existed. This brought them to a fresh point, viz., that in those cases where there was such functional or organic disease, there was no use in putting a large quantity of food into the stomach and expecting the damaged and diseased organs to do the usual amount of work. The food should in those cases be extremely digestible. It should be varied. Potatoes and lemon juice ought to be added to it. In his own practice he was accustomed in all cases, where there was such functional or organic disease, to peptonize part of the food by the method of Dr. Roberts, of Manchester; not peptonizing all the food, but giving partly peptonized and partly unpeptonized, thus giving the organs some work to do, and also affording to the blood vessels and lacteals a sufficient supply of nourishment.

Dr. HACK TUKE asked Dr. Mickle what form he was specially referring to in the case of organic disease.

Dr. MICKLE replied that he referred more especially to ulcerated and inflammatory conditions.

Dr. B. FOX said he should like to know whether Dr. Sutherland had any experience in regard to the presence of diarrhœa. As respects organic disease of the stomach causing positive refusal of food, he supposed that the statement might be almost received that nearly every lunatic was dyspeptic, which condition might in one case cause mere disinclination to the food, and in another case absolute determination to resist all food at all, therefore it was a good thing if they could adopt any plan by which this could be rectified. He had occasionally seen instances in which it had been done. Sometimes the condition had been one of chronic dyspepsia, in which the acids and nux vomica had done good. As regards Dr. Sutherland's very interesting propositions, he should like to know whether his cases were quoted as instances, or were they the cases on which his propositions were founded? He thought that the increase in weight was not an ominous sign, but rather the contrary. Surely it was an indication that absorption was taking place. He presumed Dr. Sutherland meant superabundant gain; the extraordinary amount of fat that certainly did become accumulated. He would like to ask Dr. Sutherland if he would not modify his statement that mere gain of weight was bad.

Dr. Huggard quoted a case which had an important bearing upon the subject under discussion, though it was of even greater interest from various other points of view. A lady between 40 and 50 years of age had an attack of melancholia, accompanied with cataleptic tendency. She refused her food from the belief that it was poisoned, and on several occasions it was necessary to use the stomach-pump. At this time the speaker, impressed with Dr. Hack Tuke's paper on hypnotism, and Tamburini and Seppilli's experiments on the same subject, had recourse to this agent. The dangling of a bunch of keys for a few minutes before the patient's eyes brought on the hypnotic sleep. While in this state any idea suggested was believed, and commands were obeyed. She was ordered to eat, and she ate. She was ordered to drink, and she drank. She was ordered to go through various quick movements, and she did so. She was told that she was the happiest mortal in the world, and was desired to laugh. Her face lighted up; an unaccustomed smile came upon her lips; the croaking noise of unwonted and almost forgotten laughter was heard, which soon, however, with practice, softened into more natural sounds. Hypnotism was employed, off and on, for a week, and was then discontinued lest a habit should be formed. But during the employment of this measure, marked improvement was observed, which had since continued, and now the lady was convalescent. In this case a new device was adopted to compel the ingestion of food. But more than this, an opportunity was afforded of reaching and exciting to action long disused nervous channels. Dr. Savage had asked a question as to the use of artificial foods. He (Dr. Huggard) had seen an account given of peptonized foods by an Italian observer. That gentleman found them very valuable for forced feeding, but expensive.

Dr. Mickle said there was no exceptional expense in peptonized food. It could be obtained at very little expense. It only cost a few shillings beyond the cost of the food. A few shillings' worth of the material would last a good many days.

Dr. Hack Tuke said that there was an article in the Journal several years ago on nutrient enemata by Dr. Needham who was present, and he should like to know whether he had still recourse to them frequently.

Dr. Needham said that he had. It was a serious business to begin feeding. In a considerable number of cases, however, the stomach was in that state that it was extremely irritable, so that there was retching and ejection of the food; or the stomach was in a filthy condition, and could not possibly digest it. In such cases he thought it important to sustain the patient by nutritive enema, 4ozs. of strong beef tea, with a small quantity of whisky six times a day. He had found no difficulty at all, the patient being held down, and using a short elastic tube and a 4oz. enema syringe.

Dr. Hack Tuke asked Dr. Needham if he found that mode of feeding more or less easy than feeding by the mouth.

Dr. Needham said it was easier; but of course he would use it in those cases in which there was a difficulty in feeding by the mouth, and where retching would take place which would not go off.

Dr. Hack Tuke said they had had a very interesting discussion. The remark had been made that the lunatic was frequently dyspeptic. Unfortunately dyspepsia was not confined to lunatics. In many of the cases in which there was an excess of flatus in patients, that condition might have existed before they became insane. Very likely in many sane persons if a tube were introduced into the stomach there would be considerable expulsion of wind. His own impression of Dr. Sutherland's paper was that the prognosis was too unfavourable. He could not but think that the patient who refused his food was in rather a poor way. If he lost flesh, Dr. Sutherland told them the prognosis was bad. If he gained it was also bad. So, what could the unfortunate patient do? However, the author's remarks must not be taken too literally. He quite agreed with Dr. Savage that they should not be guided, as regards

prognosis, by one symptom only. He would now call upon Dr. Sutherland to reply.

Dr. SUTHERLAND said that, first with regard to Dr. Gardiner's remarks, it was quite true that refusal of food did very often arise from physical causes, but they must not go to physical causes only. They must also take into consideration the mental causes of the refusal of food before they determined whether they were to feed him or not. In reference to another physical point, they might say that the patient's breath was an indication. If the breath had the peculiar smell indicating that the coats of the stomach were decaying, there was no time to be lost. He himself always carefully watched them for twenty-four hours. During that period he would be guided by the condition of the pulse, and by the previous history of the patient. Dr. Newington had suggested that they were not to feed by routine. He thought that a very powerful man might be shamed by constantly feeding by the rectum. He would, however, like to recommend pearl barley as being a good thing, through the nasal tube. It dissolved in the hot beef tea, and in that way they might get a good food. Dr. Rayner had told them that they ought to ascertain the cause. He did not think that he could be accused of not having ascertained the cause, as would appear from his investigation of the case where there was the obstruction, but it was quite impossible in a paper like the present to take every point. As regards Dr. Rayner's case of emaciation which recovered, that, he thought, must have been an exceptional one. Several speakers had remarked upon his point that if a patient gained flesh it was unfavourable, but it was only so with regard to the patient's recovery of mental power. Of course a fat patient was much more likely to live long than a thin one. As regards Dr. Savage's rather severe criticism with respect to his (Dr. Sutherland's) taking the refusal of food as the one symptom only, he wished to say that he took refusal of food as the subject of his paper because he wanted to find out by prognosis whether such and such a course of treatment was warranted or not. Of course, taken by itself, it was insufficient; but he thought it was a good sort of peg or stand-point on which to found his remarks. Dr. Savage and others must remember that private asylum proprietors were placed at a very great disadvantage with regard to statistics. They had not so many patients to try their experiments on, and they had cases of a different class to deal with. He would not say that one life was more valuable than another, but it was quite certain that if a patient died in a private asylum there was a great deal more said about it than in a public asylum. Dr. Savage had spoken of a man who seemed rather to like being fed and wished to be fed. He himself had a lady patient whom he had to feed with the mouth tube, and she liked it very much. On the second occasion he attempted feeding with the nasal tube, but it did not succeed. He passed it down, but could not get it to the stomach. However, it had such a good effect upon the patient that she recovered. He quite agreed with Dr. Savage as to varying the feeding. As to Dr. Needham's remarks, undoubtedly injection by the rectum sometimes had a good moral effect. With regard to Dr. Fox's cases of diarrhœa complicated by food refusal, he had himself had such a case —a lady whom he had to feed artificially, but she died. He had used sulphate of copper pills, a very good remedy. Dr. Fox had asked him whether the propositions were taken from the cases or the cases from the propositions. He might say that the propositions were taken from the cases, but they were typical cases. As regards Dr. Huggard's statements, he had a hysterical case at the present time. Dr. Needham had said—Do not feed too soon. He quite agreed with that. As to violent cases, that was a most difficult point. The most violent case he had had was that of a general paralytic, complicated with phthisis. He could not feed him by the nose. He tried by the rectum, but the attendant got it in his face. Then Dr. Hack Tuke made some remarks agreeing with those of some other speakers, that was to say, with regard to his

founding a paper upon one symptom. His object in so doing was to find out, if he possibly could, some indication for feeding, although, as he had said before, it was impossible to take one point like refusal of food as either indication for treatment or prognosis. However, he hoped, if only from the discussion which had been elicited, that they had had some fresh light upon the subject.

Dr. HACK TUKE having expressed the thanks of the meeting to Dr. Sutherland for his interesting paper, informed the members present that arrangements had been made for their dining together at eight o'clock. He suggested that it would be desirable that an opinion should be elicited as to the best time of the day for having their quarterly meetings. Probably those who were present would be more likely to give an opinion next time, but if there was any gentleman present who thought there had been an error made in fixing five o'clock as the time of meeting, and who wished to propose any other time, he hoped he would do so. No member responding, the meeting adjourned, Dr. Tuke remarking that the present occasion would be regarded as an experiment.

A Quarterly Meeting of the Medico-Psychological Association was held in the Hall of the Faculty of Physicians and Surgeons, Glasgow, on Wednesday, 18th April. There were present Drs. W. W. Ireland (chairman), Clouston, Yellowlees, Wallace (Greenock), Alexander Robertson, Carlyle Johnstone, Clark, Rutherford.

Dr. CLOUSTON read a paper on "Senile Insanity."

Dr. IRELAND said that it was needless to take up time in praising the paper which had just been read. They all thought very highly of Dr. Clouston, and this would add to his reputation. He had derived much instruction from the paper ; but as their time was short enough for their programme, he would only refer to a few points which seemed to him to have been passed over. He had not Dr. Clouston's opportunities for studying senile insanity, but like him he took a kind of pathological interest in such forms of senile derangement as were met with in the world. He wondered that there was no reference to the moral degeneration of old age. It was long before he noticed this himself, having been in early youth prepossessed in favour of senility by reading a paradox called Cicero de Senectute. What first opened his eyes was a passage where Sir James Paget, in his Hunterian Oration, spoke of "those forms of senile degeneration in morality against which all men growing old need to guard." None of us liked to go, and we could not stay here without becoming old, and so he had an uneasy feeling that he might pass into that mental stage which would render one liable to having papers written upon him, but he would not suppress his conviction that Paget here spoke the truth. There was a saying "that the good die young." However this might be, the verse of Burns sometimes occurred to him—

> O ! why has worth so short a date,
> When villains ripen grey with time ?

Before that, he had been much perplexed by the behaviour of some old men, but after reading the passage quoted, the truth dawned upon him. They all knew that there were many good old men, but as years went by there were hardening and demoralizing tendencies which made some worse in old age than they were in youth and middle life, and which might culminate in insanity. He thought senile derangement was often accompanied with well marked changes in the handwriting, and he had collected and compared specimens of this kind of degeneration in the writing during several years. Dr. Clouston had referred to some races who aged rapidly ; among these he would place the Ceylonese and the Bengalis.

Dr. ROBERTSON—I think the whole paper very instructive and valuable. Dr. Clouston has brought out by his statistics, very forcibly, the striking fact that

senile insanity is by no means so incurable as is by many supposed. The recoveries were under 75 years of age, but there were cases even above that age. This corresponds with my own observation. While he spoke I was reminded of a case of mania which occurred last year in a man of 76; he was sent to Greenock Asylum and brought back recovered after six weeks. He is now in a state of ordinary senility, and is an inmate of the poorhouse. In reference to the opinion that the occasional appearance of increased misery in certain aged melancholiacs was indicative simply of organic uneasiness or pain, and did not show that there was a corresponding mental state, I would venture to express a doubt, especially as a tendency to suicide was stated to have been manifested. It could not be easily established that there was not an actual increase of mental suffering in these cases, while the paroxysm lasted, though it seemed to have been of short duration.

Dr. YELLOWLEES—I have always felt interested in this type of insanity, as it is one of those forms which can be definitely separated from the mass. Evidently the vascular changes and the insufficient nourishment are the essence of it. The recurrence of the attacks is specially interesting. I have under my care, at present, a lady over 70, whose friends, by my advice, tried to manage her at home, but utterly failed. She is extremely restless, refuses food, has delusions of poisoning, and requires to be fed by the tube four times a day. She has been twice insane since she was 60, and recovered on both occasions. This makes the prognosis more hopeful in the present attack. [This patient, we learn, recovered perfectly within a month.] Recovery in senile insanity is interesting from the statistical side. I take a different view from Dr. Clouston of what constitutes recovery. I must be able to certify patients sane before I class them as recovered. Normal senility is surely different from normal mental health. The articulation in some forms of senile insanity resembles that of general paralysis. The bone compensation for brain-atrophy is unquestionable and very interesting.

Dr. ALEX. ROBERTSON read a paper "Recovery from insanity of seven years' standing; treatment by electricity."

Dr. IRELAND was glad to listen to a paper on therapeutics which he regretted was a rare thing at their meetings. It seemed most disappointing to think that so little new was done in this direction, when they knew that the brain was readily acted on by drugs, and that through the application of cold and heat as well as electricity they could so readily influence the circulation within the cranium. He remembered at a former meeting of the Association, held in the same room, hearing the results of Dr. Robertson's experience in the use of cold and hot applications in nervous diseases. It had been proved by experiment that we could, by passing the continued current through the brain, cause contraction of the capillaries, and with a greater strength cause their dilatation. He thought that this was owing to the direct action of galvanism upon the brain, though it was possible that by acting upon the sympathetic nerves we could influence the cerebral arteries. He had himself entertained great hopes of electricity as a therapeutic agent in insanity, and had made some experiments both in imbecility and insanity. He would have published his experiments, but they were incomplete, and he never succeeded in achieving a success like that of Dr. Robertson.

Dr. CLOUSTON said that his experience of the therapeutical value of electricity had not been great. Dr. Inyasevsky, a Russian, medical officer of the asylum at Kazan, in Eastern Russia, was recently at Morningside and spoke of his experiments. He had an apparatus for measuring the current. He found that the weaker currents were most effective, and rarely used above five cells. He had the greatest faith in the efficacy of this treatment, particularly in its stimulating influence in cases of melancholia and stupor, as the result of his extensive experience.

Dr. ROBERTSON, in reply, said that he did not attempt to theorize on the action of the current, whether that were through the sympathetic on the vessels, or directly on the tissue of the brain. He did not try to estimate the amount of the electricity; this is tedious and difficult to do correctly. He simply increased

the strength of the current till the patient felt it unpleasant, her feelings being his guide. He found that in the early stage of treatment a current from 15 to 20 cells could be borne, but latterly one of ten cells was sufficient.

Dr. CAMPBELL CLARK read "Notes (a) of a case of insanity following alcoholic excess and lead poisoning, (2) of three cases of phthisical insanity."

Dr. ROBERTSON said—In reference to the first case I doubt if we can distinctly attribute the mental symptoms to the presence of lead in the system. There was no doubt a blue line on the gums. Perhaps the slight ptosis may have been caused by the poisonous action of the lead, but even that, as well as the mental symptoms, may have been due to alcohol, for it was stated that the patient had been of dissipated habits for years. Still possibly the lead may have had something to do with the causation. In reference to the second group of cases it seemed to him that the cases submitted by Dr. Clark did not correspond very closely with Dr. Clouston's description of the symptoms. He understood that to be a state of depression with delusions of suspicion and occasional outbursts of irritability, but in Dr. Clark's cases there was sometimes exaltation with grandiose delusions, similar to those of general paralysis, and this was unlike what Dr. Clouston had described. About this phthisical mania he felt still in a state of uncertainty. He had certainly met with cases which quite corresponded with Dr. Clouston's description, as he understood it, associated with chronic phthisis, but he had met with other mental disorders, and particularly acute mania along with that condition, so that he did not feel sure that phthisical insanity could be regarded as a definite form of mental disease.

Dr. CLOUSTON considered Dr. Clark's three cases to be good examples of what he had described as phthisical insanity in 1863. He had observed the exaltation described by Dr. Clark in some cases. There were the suspicion, the outbursts of irritability, unsociability, dementia, and the pathological condition—brain anæmia. It is essentially a brain anæmia, with a reflex disturbance of constitutional function from the diseased lungs.

Dr. YELLOWLEES—The term phthisical insanity has been much misapplied and greatly misunderstood. It must not be confounded with ordinary insanity with phthisis. I have always restricted the term to a certain class of cases in which the mental symptoms seem to be originated by the lung disease and to vary with its progress. Such patients are whimsical, wayward, uncertain, irritable, unsocial, suspicious, and liable to impulsive outbreaks. Brain irritation, rather than brain anæmia, I think the pathological condition.

Dr. CARLYLE JOHNSTONE read a paper "Cases of exophthalmic goitre," and exhibited some interesting pathological specimens.

The members afterwards dined together at the Grand Hotel.

THE SENTENCE ON JOSEPH GILL.

At the Assizes at Leeds in April, Joseph Gill was tried before Mr. Justice Kay on an indictment charging him with assaulting with intent to murder Mrs. Fox-Strangways. Although the plea of insanity was not set up, strong medical evidence was given to show that the prisoner was not fully responsible for his actions, and that by reason of his mental condition he was entitled to consideration in the verdict, and the sentence of the Court. It was, no doubt, from this feeling that the jury found Gill guilty of only unlawfully wounding. To the surprise of most, if not all, including, we have reason to believe, the jury, Mr. Justice Kay sentenced him to penal servitude for five years.

Dr. Ball, of York, and Dr. Baker, the Medical Superintendent of the York Retreat, had previously attended Gill on account of his mental state and gave evidence at the trial; on two occasions he had attempted suicide. He formed a foolish, but it would seem, not criminal attachment to the prosecutrix, and the letters from her read in court showed how large a share she had in leading him

to renew relations which had been broken off for five months. The motive for the assault was not proved. Probably some groundless ideas of jealousy entered his mind, and in fact originated in its morbid condition. A petition has been prepared and signed for presentation to the Secretary of State for the Home Department, for the purpose of obtaining a substantial mitigation of his punishment. Dr. Baker has addressed a letter to the "York Herald," in which he says "Gill had in July, 1882, attempted suicide, was depressed and sleepless, and was in such an unstable mental condition that we thought it necessary to engage the services of a young doctor to live with him and watch over him. We pleaded with him most earnestly to break off his connection with Mrs. Fox-Strangways, insisting that we thought it necessary for the maintenance of his mental stability that he should do so. A letter of piteous pleading was sent to the lady to ask her to help us by ceasing all correspondence with him. For a time he followed our advice, but then there came a time when Mrs. Fox-Strangways, disregarding our appeal, found out Gill's place of retirement, and soon had him again travelling the certain road to mental and moral ruin. Then came the sorrowful catastrophe—this poor, weak, deluded, semi-insane man stabs the woman who had lured him back again (after an absence of nearly six months) from his retreat at Harrogate, to her own house at Scarborough. Surely, bearing in mind his mental instability and the provocation he had received, the verdict of the jury was a just and righteous one. But when the judge passed sentence, his words were the personification of sternness; verily, others besides the medical witnesses, when they heard the terrible sentence of five years' penal servitude, went away exceedingly sorrowful. As a member of the priesthood of medicine, whose mission in life it is to attempt to minister to minds diseased, I ask, is it possible, in this enlightened nineteenth century, that this poor weak-minded man is to work out this hard sentence?"

We hope that Sir Wm. Harcourt, after inquiry into this painful case, will feel justified in advising Her Majesty to comply with the prayer of the memorialists.

MEDICO-PSYCHOLOGICAL ASSOCIATION.

The Annual Meeting will be held at the Royal College of Physicians, Pall Mall East, London, on the 27th of July, 1883, under the presidency of Dr. Orange, at 10.30 o'clock. The Council will meet at 10.

H. Rayner, Hon. Sec.

Hanwell, June 15, 1883.

BRITISH MEDICAL ASSOCIATION.

Fifty-First Annual Meeting, Liverpool, July 31st, August 1st, 2nd, and 3rd, 1883.

Section—Psychology.

President . . .	Thomas Lawes Rogers, M.D., Rainhill.
Vice-Presidents . .	George Henry Savage, M.D., London.
	David Yellowlees, M.D., Glasgow.

The next annual meeting of the British Medical Association will be held at Liverpool, on Tuesday, July 31st, and the three following days. In the Section of Psychology, in addition to the usual papers, the following special subjects have been selected for discussion:—

1—The Employment of the Insane. Introduced by Dr. Yellowlees.
2—Bone Degeneration in the Insane. Introduced by Dr. J. Wiglesworth.
3—Cerebral Localization in relation to Psychological Medicine. Introduced by W. Bevan Lewis, L.R.C.P.
4—General Paralysis. Introduced (if time permit) by Dr. J. W. Mickle.

It is necessary that abstracts of all papers to be read in the Section should be sent to us before the 15th of July.

George E. Shuttleworth, M.D.,
Royal Albert Asylum, Lancaster.
Wm. Julius Mickle, M.D.,
Grove Hall, Bow, London, W.

N.B.—No Paper must occupy more than 15 minutes in reading, and subsequent speeches are limited to 10 minutes.

AFTER-CARE.

The Association for the After-Care of Poor and Friendless Female Convalescents on Leaving Asylums for the Insane.

The Anniversary Meeting for 1883 will be held, by the kind permission of Lord Cottesloe, at 20, Eaton Place, on Thursday, 5th July, at Three p.m.

Rev. H. Hawkins,
Chaplain's House, Colney Hatch, N.

Obituary.

M. LASÈGUE.

The distinguished Professor of Clinical Medicine in the Faculté de Médecine, in Paris, and Physician-in-Chief of the Insane Infirmary of the Prefecture of Police, died March 20th, 1883, aged 67. He was an honorary member of our Association. The memory of M. Lasègue must be fresh in the memory of all who were present at the Section for Mental Diseases of the International Congress in London two years ago. Everyone listened to his discourse on epilepsy with pleasure, whether his original views carried conviction with them or not. With few Frenchmen did the flexibility and beauty of their language appear to greater effect. His power of description, aided by rapid and effective sketches on the black-board, was unsurpassed, and those who had the pleasure of his acquaintance in Paris knew what an admirable clinical teacher he was. A dash of humour would again and again relieve and enliven his statement of scientific facts. On the occasion referred to it will be remembered that M. Lasègue, in mentioning incidentally the fact that the patient of whom he was speaking had nine children, laughingly exclaimed, "*Famille Anglaise!*" At the annual dinner of our Association, 1881, he responded to the toast proposed by the President, "Our Foreign Guests."

M. Lasègue was an accomplished physician in all departments of medicine, although especially distinguished in mental disorders, and was in 1870-71 President of the Société-Médico-psychologique of Paris, to which body M. Motet, who now worthily fills that office, thus expressed himself at the *séance* of the 9th April last. "From whatever side we study this truly remarkable man, we are struck with the perfection of the qualities by which he was distinguished. As Clinical Professor in the Faculté de Médecine, he conducted his teaching with the greatest care. His lessons which were not written, but which he had long studied, were models of able exposition. Full of facts and clever insight, they were for the student a sort of initiation to unknown and even unsuspected truths. For those who, more experienced, listened to the master, they were the long-sought solution of questions previously unsolved. Lasègue spoke and as he proceeded to formulate his idea, it was a revelation for him who was able and knew how to comprehend it. There was not a word, not a phrase, to which our previous thoughts did not respond and which did not state in terms of admirable precision the law of pathological conditions, glimpsed at before perhaps,

but never determined as they were by him. . . For us, gentlemen, in whose midst he took his place in 1867, too late according to our wishes, he was already known as one of ourselves by the writings with which he had enriched your 'Annales.' From the first he was one of the *collaborateurs* with his friend Morel. The historical studies on insanity, on its moral treatment, on certain asylums in Russia, belong to the period of 1844-1848. And subsequently the 'Archives Générales de Médecine,' as well as your 'Annales' are full of these monographs, wherein pages of vigorous brevity are condensed studies of the highest scientific value. Need I recall to you that *chef d'œuvre* of fine analysis called 'Le Délire de Persécution?' Published in February, 1852, the original memoir of Lasègue has circulated, we may say, throughout the scientific world. Everywhere this form, the outlines of which have been traced with so forcible a pen, has been accepted; nothing has been added to it, so precise was the description, the details of which had all been supplied by clinical observation. It has been the same with all Lasègue's works, and you know that they are numerous. From predilection he attached himself to Mental Medicine, into which he had been initiated by a master, a friend, the elder Falret. . . . Lasègue was a high authority in medico-legal questions. He owed this not less to the recognised independence of his character than to his great knowledge. He judged things from a height, with a precision, a nicety, which carried conviction. His concise reports, in a form sometimes aphoristic, expressed all that was necessary, and nothing more. We, his former colleagues, shall recall the part which he took at our discussions; we shall never forget what he was during our Congress of 1878, where, side by side with our venerated President, M. Baillarger, he appeared as one of the most distinguished representatives of Mental Medicine in France."

We regret that our space does not allow us to cite the whole of M. Motet's discourse, which is as true as it is eloquent.

Since the above was in type we have received from him a few particulars, which we subjoin:—"Charles Lasègue was born in Paris, Sept. 5, 1816. It was not intended he should follow Medicine, but forming a friendship with Claude Bernard and Morel he acquired a taste for Medical Science, and began to study it in consequence. It was at the Salpêtrière, in the wards of M. Falret *père*, that he applied himself to mental alienation, for which he was prepared by his psychological knowledge; and he became the favourite pupil, and then the friend of both Falret and Voisin. At the time of his death he was physician to the Hospital of La Pitié (as well as holding the appointments mentioned above). Lasègue died in the midst of his family, whom he so much loved. He was a man of the warmest affections, and faithful in his friendships. I do not speak of his superior intelligence; you know that as well as I do. His loss is acutely felt by all those who had the honour of his acquaintance."

T.

HERVEY B. WILBUR, M.D.

The death is announced of Dr. H. B. Wilbur, for upwards of 30 years Superintendent of the New York State Idiot Asylum. On May 1st he suffered from a sudden attack of illness whilst writing at his desk, and after rallying for a short time was seized with fatal syncope, the autopsy disclosing extensive fatty degeneration of the heart.

Dr. Wilbur was born in 1820, and was educated at Amherst College. After engaging for a time in the work of teaching, he studied civil engineering, but soon abandoned this field in order to study medicine. He possessed qualities that were admirably suited to this profession, in which he was successful from the start, in Lowell first, and afterwards at Barre. He was one of the first in America to turn attention to the care and rational treatment of idiots, and having made vain efforts to enlist the support of gentlemen of means, he received pupils in his house, and commenced in a humble way a work that was destined to com-

mand the attention of the profession and the public. The establishment of this school for idiots at Barre by Dr. Wilbur in 1848 seems to have preceded by a few months that of the Massachussetts Institution with which the name of Dr. S. G. Howe is so honourably connected. In 1851 the Legislature of New York authorised the foundation of a State Idiot Asylum, and Dr. Wilbur was appointed its Superintendent. In this work, carried on first at Albany and subsequently at Syracuse, he spent the remainder of his life, and his Reports show that to the development of the various measures calculated to promote the amelioration of idiots his best energies were devoted. Not only did he devise methods of education specially adapted for the feeble-minded folk placed under his charge, but he was ever ready to avail himself of opportunities of educating the various Legislatures as to the necessity of establishing State institutions for imbeciles. His zeal led him to make several tours to Europe to inspect kindred institutions both in this country and on the Continent; and during his last visit (in 1875) he seems to have devoted considerable attention to British modes of management of asylums for the insane. "Non-restraint" and "Employment for the Insane" formed the subjects of various pamphlets which he subsequently issued, and his enthusiasm in this direction sometimes carried him into controversy with his *confrères* engaged in lunacy practice. Whatever may be thought of his views as to the insane, it will be freely conceded that in all that concerned the treatment and care of idiots Dr. Wilbur was an eminent authority. To medical skill he added a thorough knowledge of educational methods. Resorting to specially-adapted modes of imparting instruction, he was able to work wonders in developing the perception of those whose feeble intellects would seem to the ordinary teacher to be beyond the reach of pedagogy. While his thought was centred with rare devotion on his professional work, Dr. Wilbur was at the same time a capable and careful administrator, and his management of the New York State Idiot Asylum won him repeated commendations from high official quarters. In addition to the Syracuse establishment, the character of which was mainly educational, he had also, for several years preceding his death, the supervision of a connected custodial Institution at Newark.*

Dr. Wilbur was a facile writer, and although he has not left behind any large work, he was the author of numerous monographs, and of an able article on "Idiocy" in "Johnson's Encyclopædia." He was also a ready speaker, and a frequent attendant at conferences relating to social and philauthropic matters. In 1878 he filled the office of President of the Association of Medical Officers of American Institutions for Idiotic and Feeble-Minded Persons.

The estimation in which Dr. Wilbur was held by his medical neighbours is shown by the feeling terms in which his death was alluded to at a special meeting of the Syracuse Medical Society. "It would certainly be the highest pleasure that could be afforded to any of us," said the President, Dr. Pease, "to manifest here, by personal tributes, our respect and friendship for the honoured dead." Those of his British *confrères* who had the privilege of Dr. Wilbur's acquaintance will not soon forget the handsome presence, the manly outspokenness, and withal the courteous, genial manner which characterised the subject of this notice.

G. E. S.

WILLIAM SAMUEL TUKE, M.R.C.S.

William Samuel Tuke, who passed away at Bournemouth on April 20th, at the age of twenty-six years, was the eldest son of Dr. D. Hack Tuke, of London. He was a student of University College, where he obtained the gold medal in physiology, and the Filliter Exhibition in pathology. He also obtained the

* Described by Dr. Ireland, "Journal of Mental Science," Vol. xxvi., p. 216.

gold medal in physiology at the Intermediate M.B. examination at the London University. After holding the appointment of house-physician under Dr. Wilson Fox, he took the M.R.C.S. diploma in 1878. Afterwards, he was for some time in Egypt and the South of France, seeking in those more genial climes to arrest the pulmonary mischief which had declared itself, and to which he eventually succumbed. In 1881, the New Sydenham Society published an excellent translation by him of Charcot's "Lectures on Senile Diseases."

William Tuke was unquestionably a man of rare powers, and his early removal is a keen disappointment to all who had the privilege of his acquaintance. It had been the hope of his friends to see him pursuing the specialty with which his father's name is so honourably associated, and he had already contributed several papers on psychological subjects to the "Journal of Mental Science."

His mental breadth and lucidity, which were known and recognised by not a few of our leading men, gained for him a very high place in the esteem of his teachers and fellow-students. But it was in the sweetness and strength of his personal character that the charm of the man lay. Keen as was his scientific interest in his hospital patients as "cases," he won their confidence and affection in an exceptional degree, by the simple power of true sympathy. His loss has left a sorrowful blank in the hearts of his many friends.—*British Medical Journal.*

Correspondence.

THE NEW STATISTICAL TABLES.

To the Editors of THE JOURNAL OF MENTAL SCIENCE.

GENTLEMEN,—In the Asylum Reports for the year 1882 most of the tables have been framed on the old lines, but a considerable number are done on the new system, and as the Superintendents of these Asylums do not complain of any great difficulty or extra labour involved, it is to be hoped that their practice at the end of this year will become general. Already they have been adopted in some of the American Asylums. There is no doubt that the great feature of the tables, the introduction of the distinction between reckoning "persons" and "cases" is very important indeed, and will go a long way towards altering the views that many have with regard to the value of asylum treatment, notably, in giving a proper appreciation of the small amount of real and permanent recovery. There is, however, one table introduced which, however valuable it might be if sufficient information could be obtained, seems to me practically useless in the face of the fact that the difficulties in procuring exact knowledge are very great, that often no trustworthy details are given, and that opinions as to what constitute different attacks vary among authorities. I refer to Table I A. which is to show the "number of previous attacks among those admitted during a given year, distinguishing those attacks that have been treated to recovery (and discharge) in this and in other asylums." A person may be admitted for the first time to an asylum who has been ill for a few months, or weeks, according to the certificates of admission, but who has really during the time passed through a short attack and has recovered previous to the one for which he is admitted to the asylum. Yet such a person who is really in the second attack would be left out of the Table I A. altogether, because the friends have not understood that the first illness, which lasted perhaps only a short time, was an "attack;" to all intents and purposes as much an attack as the one for which they deem it necessary to put him under certificates. Numbers of instances of mania a potu come under this head, as also insanity from sunstroke. I can quote cases of this kind that have been treated in general hospitals to recovery or improvement, and where the patient has afterwards, for a similar attack, been placed under certificates, with the result that his "attack" is reckoned as a "first" one, because he had never before been placed in an asylum. Again, it occurs to many persons to have a lucid interval, the duration of which may vary, being in some so long that one is justified in giving a discharge and reckoning it a recovery; but this lucid interval may in another, though very decided, yet be very short in duration, say two or three weeks, occurring perhaps twice or more before discharge can be recommended. In such a person would the total number of attacks (which might be two, three, or more) be reckoned as "all attacks" in Table I A.? They should be so counted, and then the table would be correct for that patient; but suppose the patient to be discharged, and after an interval of two or three weeks be sent to another asylum, would an account of the

three or four previous attacks be known and reckoned? Assuredly not; he would count to his second asylum as a person who had had one previous attack, although, in truth, the case was one of a regularly-recurring insanity, discharged in the lucid interval between his perhaps fourth or fifth attack.

A few months ago a man was sent to this asylum in a state of suicidal melancholia, who had been discharged "cured" from another asylum five days before his admission; he recovered again in a short time, and for a month went on admirably, but he then had a short though very decided relapse, after which he again worked here just as well as an ordinary workman. His friends then wished to take him out on trial, but he had not been away three days before he came back in a very insane state. Now, had this man been discharged and re-admitted on fresh certificates, he would have appeared in Table I A. as having had two previous attacks, whereas, to my knowledge, he has had four, and may have had many more. If, in the case of this man, it be contended that these lucid intervals ought to be counted as short periods of sanity occurring during the course of one attack, then his first admission here ought to be considered as a prolongation of his stay in the other asylum, and not as his "second attack." There is a girl here who, if Table I A. were adopted, would figure as having "had one previous attack," but, in truth, she was discharged "cured" from an asylum and sent here on the third day after her discharge. Since her admission there have been several occasions when she might have been sent away "cured," but, fortunately, the fear of another attack prevented my doing so, and the fear has been justified by the occurrence of "attacks," for each of which she might have been again placed under restraint, and the total of which would have been reckoned as many more than it now will be. She has had many attacks, but has only been in two asylums; by right she should not have left the first one. There is here an exceedingly troublesome patient, who, before coming to London, was discharged from two asylums, in each of which, as far as I can make out, she was counted as a "recovery." That she ever "recovered" is, I think, very doubtful, judging from what I have ascertained to be her acts directly after leaving these asylums. There is no probability of her ever being discharged "recovered" again; but should such an event happen, she would appear in Table I A. as having had two previous attacks, although in reality she is now in the process of evolution of her first attack.

It seems then, to me, that the introduction of this table is practically worthless, because the information required cannot be properly supplied. All it shows is the number of times a person has been in an asylum, a piece of information of little value. During the last few years I have received here numbers of patients from other asylums, about whom, beyond a copy of the original certificate upon which they were admitted, absolutely no information has been given. Many of these have had distinct "attacks" since their admission, but the interval between these attacks has been too short to warrant my discharging them; others, after a certain period of waiting, have been discharged cured; but to attempt to record the number of "attacks" they have had altogether is impossible. Some of them may have been admitted to some other asylum, in which case I have done wrong in counting them as "recovered," and have helped to stultify a table such as the one in question. The information given in lunacy certificates is well known to be, as a rule, carelessly given, and may be very damaging to the accuracy of such a Table as I A.; for instance, not long since a male patient of a very dangerous character was discharged from a county asylum to the care of his friends. These friends soon found out that they could do nothing with the man, so he was sent here on fresh certificates. All the information given about him was that he had been "discharged" from another asylum sometime previously, leaving it to be inferred that he was discharged cured, and crediting him with one previous attack, though it appeared afterwards that he had not even had a lucid interval. Seeing then how different are the views of Superintendents as to what constitutes an "attack" or a "recovery," that on the transfer of patients no history is given of the attacks they have had, and that certificates are often untrustworthy, I would humbly suggest consideration by the Committee of the Association as to the advisability of retaining this table.

I am, &c.,

T. C. Shaw, M.D.

Banstead,
June 6, 1883.

MILIARY SCLEROSIS.

To the Editors of The Journal of Mental Science.

Gentlemen,—May I be allowed to offer a few remarks upon the paper by Dr. Plaxton on the above named subject in the current number of the "Journal of Mental Science."

Dr. Plaxton asserts his belief, derived from his own observations, and the support of so high an authority as Dr. Savage, that the above change is purely post-mortem—the result of alcohol employed in the hardening of the tissues.

In reply to this criticism, I would beg permission to state that I derived my original microscopical observations * from portions of brain and spinal cord that had never had

* "Journal of Mental Science," 1870, and "British and Foreign Med. Clin. Rev.," 1874.

spirit near them, except that used to moisten the razor, in making the sections. I may add that I have found the same lesion in *perfectly fresh* brain matter.

Of the series of pathological conditions enumerated in the contribution to the "Brit. and For. M. C. R.," I am not able to affirm confidently, of all the specimens, that none had been placed in spirit before they reached my hand; but my own practice at that time was to use exclusively chromic acid for hardening the substance.

I do not pretend to explain the difference of opinion—possibly the true explanation may turn out to be humiliating to my self-esteem. I will, however, beg leave to wait the true solution of the question, whether confirmatory or condemnatory of my own views, which, moreover, I am quite ready to surrender on sufficient evidence.

I remain,
Gentlemen,
Your obedient servant,
W. B. Kesteven, M.D.

[That many changes are produced by decomposition of the tissues in the hardening fluid is certain, and observers all over the world have about the same time arrived at the same conclusion, which is confirmation in itself strong enough to convince most people.

Spitzka, in America, deserves credit for being one of the earliest, if not the earliest, to describe these changes; but many others quite independently had convinced themselves that spirit was the great cause of the appearances described as miliary sclerosis. Dr. Kesteven has shown tissues in which bodies similar in appearance are produced without spirit. We have seen such bodies, and would repeat that they are similar, but not the same, and that they, too, are produced by decomposition.—G. H. S.]

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Effect of a sudden explosion of acute alcoholism. Par M. Motet. Trans. Internat. Med. Congress, 1881, iii,, 607.

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TUMEUR DU CERVEAU avec aliénation mentale. (Case.) Par Ph. Rey. Ann. Méd. Psych., Janv., 1882, p. 70.
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Appointments.

Hewkley, F., M.R.C.S., appointed Assistant Medical Superintendent to the Royal India Asylum, Ealing, W.

MacBryan, H. C., appointed Assistant Medical Officer to the Middlesex County Asylum.

Moynan, W., M.D., appointed Assistant Medical Officer to the Wonford House Hospital for the Insane, *vice* S. S. Noakes, L.R.C.P., resigned.

Hitchcock, Charles Knight, M.D., M.A., Cantab., appointed Medical Superintendent of the Lunatic Hospital, Bootham, York.

Powell, John, L.R.C.P., appointed Junior Assistant Medical Officer to the Joint Counties Asylum, *vice* A. D. Maitland, M.R.C.S., resigned.

Beatley, William Crump, M.B., Durham, M.R.C.S.Eng., L.S.A., late Resident Medical Officer to Charing Cross Hospital, appointed Assistant Medical Officer to the Somerset and Bath Lunatic Asylum.

Keay, John, M.B., C.M., appointed Junior Assistant Physician to the Crichton Royal Institution, Dumfries.

Legge, Richard John, M.D., L.R.C.S.Ed., L.A.H.Dublin, appointed Assistant Medical Officer to the Derby County Asylum, *vice* W. Horton, M.B., resigned.

Steell, G., M.D., appointed Honorary Assistant Physician to the Manchester Royal Infirmary, Dispensary, and Lunatic Hospital, or Asylum, *vice* J. Dreschfeld, M.D., promoted.

Blair, R., M.D., appointed Medical Superintendent of the Barony Parochial Asylum at Lenzie, near Glasgow, *vice* J. Rutherford, M.B., resigned.

THE JOURNAL OF MENTAL SCIENCE.

[*Published by Authority of the Medico-Psychological Association*]

No. 127. NEW SERIES, No. 91. OCTOBER, 1883. VOL. XXIX.

PART 1.—ORIGINAL ARTICLES.

Presidential Address, delivered at the Annual Meeting of the Medico-Psychological Association, held at the Royal College of Physicians, London, July 27th, 1883. By W. ORANGE, M.D., F.R.C.P.

GENTLEMEN,—In doing me the honour to place me in the position of your President to-day, in succession to the distinguished Professor of Medicine in the University of Glasgow, I cannot but be fully aware that you are prepared to accept from me an address of a very different order from that with which the Association was favoured last year. Professor Gairdner brought prominently to our notice the fundamental principle that the profession of medicine, and the healing art on which it rests, are one, and not manifold; and, in reminding us that those whose special lot it is to minister to sufferers from diseased mental function, proceed upon the same lines, and pursue the same method, in the matters of diagnosis and of treatment, as do those physicians who minister to other diseases of the human frame, he chose a theme than which none could have been more grateful to his audience; whilst it is needless to say that he clothed that theme in language, and embellished it with illustration, the eloquence and wealth of which are of too recent memory to permit of a successor venturing, for the present, to place foot on the same ground. Whilst, then, I am sure that each and all of us would desire to keep the theme of last year's address very prominently in mind, and would, perhaps, wish to say in a somewhat altered version of Terence, "Medicus sum; medici nihil a me alienum puto," I deem myself, on the present occasion, peculiarly fortunate that

the description of medical work that has fallen to my lot during several years past has had relation to a somewhat special matter; and it is upon this special matter, the relation of mental derangement to offences against the law of the land, that I ask your indulgence for the few words which I offer to you to-day. Two incidents have occurred since the last annual meeting of this Association, which, if I had been in doubt as to the choice of a subject, would have gone far towards removing that doubt. I allude to the presentation to Parliament of the Report of the Commission, appointed in 1880, to inquire into the subject of criminal lunacy, and to the appearance of a new edition of Mr. Justice Stephen's work on the "History of the Criminal Law of England." In attempting to give even the briefest sketch of the progressive steps by which the measures for the care and treatment of criminal lunatics have advanced during recent years, the first question that naturally arises is, what is a criminal lunatic? The name appears, at first sight, to imply a contradiction of terms, inasmuch as a person who is a lunatic may be said to be incapable of committing what, in the strictest sense of the word, can be called a crime. But, in spite of this seeming inconsistency, the term has been in use for the last eighty years, and it appears likely to continue to be used, because it is, after all, really descriptive of the class of persons to whom it is applied; inasmuch as every criminal lunatic, of whatever class, has not only been charged before a court of law with the commission of some crime, but is actually in custody, so long as he remains in the class of criminal lunatics, on account of such crime—the nature of the crime, and the circumstances of its commission, determining whether the person ever enters the class of criminal lunatics or not. If the crime is not grave, the person accused is generally handed over to the parish authorities or to friends, to be dealt with in accordance with the provisions of the general lunacy laws; but if, on the other hand, the crime is grave, or if the circumstances of its commission are such as to give reason for believing that society would be insufficiently protected by trusting to the operation of the general lunacy laws, then the individual passes on into the class of criminal lunatics, and becomes subject to special statutes.

Insanity and crime may be combined in an infinite variety of proportions; and if the term "criminal lunatic" were expanded so as to be made to include, on the one hand, all insane persons who had ever committed any act contrary to law, and, on the other hand, every criminal whose mental organization

falls short of an ideal standard of perfection, it might be, in that way, made to embrace a very large proportion of the inmates of the lunatic asylums and also of the prisons of the country.

But it is a term which, though useful, cannot claim for itself mathematical precision, and the intention is that no person who has committed a crime shall become a criminal lunatic unless, having regard to the nature of the crime, the protection of the community requires this to be done; and also, that no criminal whose mental organization is imperfect shall be included, unless the defect or derangement of mind be of such an extent or degree as to prevent the application of the penal code from being efficacious; or, in other words, such as to render the person an unfit subject for penal discipline.

In a more ideal state of society than that which now exists, the class of criminal lunatics would disappear, because no one would be sentenced to punishment without his mental state being ascertained before sentence, instead of, as now so generally happens, afterwards; and, furthermore, because persons known to be insane would then be placed under proper control before, and not, as now, after they have committed some alarming act of homicide or violence.

But we are far from this ideal state, and, therefore, it happens that the number of insane persons who are left to enjoy, as it is termed, their freedom, until they have done some terrible deed, is large; and society is thus constantly being called upon to consider in what way it shall cover its own sins of omission.

The statutes relating to criminal lunatics have, therefore, as might be imagined, been enacted piecemeal to meet the occasion as it arose. I do not intend to weary you with anything approaching to a minute and detailed account of those statutes, which are to be found fully stated in the very useful works of Archbold and of Fry, but I propose merely to glance at their general tendency and scope. It is unnecessary to go very far back into ancient history to make a beginning. There is no record of the existence of a special asylum for criminal lunatics in ancient Greece or Rome; nor need we linger with the view of determining exactly what may have been Horace's opinion with respect to the mental condition of Orestes, when he wrote—

> Quin ex quo est habitus male tutæ mentis Orestes,
> Nil sane fecit quod tu reprehendere possis.

But we may come at once to more modern times.

It is estimated by Mr. Justice Stephen that, at the close of the sixteenth century, the number of persons executed annually in England and Wales for ordinary crimes was about 800; and, if regard be had to the difference of population between then and now, it may easily be imagined that this summary mode of dealing with so large a proportion of breakers of the law must have cut short many difficulties, and must have removed, at once and for ever, a large number of insane persons, intermingled with sane and responsible criminals. Indeed, long after that time, the existence of mental derangement in persons accused of the commission of crime had little or no effect upon the treatment accorded to them; because the existence of insanity was not readily admitted, and also, further, because in those times, when a whip and a dark house were regarded as being the appropriate treatment of a lunatic, the lot of any unfortunate being was not much ameliorated by being classed in that category. Matters began to improve towards the close of the last century; and, at last, in the year 1800, the trial of Hadfield for firing at George III., in Drury Lane Theatre, produced a definite amendment both with regard to law and practice. Hadfield had served his King and country in the wars—he had been gravely wounded in the battle of Lincelles—and he had given unmistakable proof of serious mental derangement long before the commission of the act for which he was tried. The evidence of his insanity, and of the connection existing between his mental derangement and his attempt upon the life of the King, was conclusive, but then the question arose as to what was to be done with him; and, with reference to this question, the presiding judge, Lord Kenyon, made use of the following words, which have served as a guide from that time to the present for the proper treatment of persons similarly situated. Lord Kenyon said: "For his own sake, and for the sake of society at large, he must not be discharged, for this is a case which concerns every man of every station, from the King upon the throne to the beggar at the gate; people of both sexes and of all ages may, in an unfortunate frantic hour, fall a sacrifice to this man, who is not under the guidance of sound reason, and, therefore, it is absolutely necessary for the safety of society that he should be properly disposed of, all mercy and humanity being shown to the unfortunate creature; but, for the sake of the community, he must somehow or other be taken care of with all the attention and relief that can be afforded him."

Here, then, were two main principles clearly and humanely set forth—the safety of society was to be secured, by not discharging the prisoner; but, at the same time, this afflicted man, who was "not under the guidance of sound reason," was to be taken care of with all the attention and relief possible. Although more than eighty years have passed since those words were uttered, they would afford but little room for amendment if submitted to revision at the present day; and, combining as they do the expression of humanity with that of prudence, they remain as applicable to criminal lunatics of the present day as they were to the person with reference to whom they were spoken. The immediate result of the trial and acquittal, on the ground of insanity, of Hadfield, was the passing of the "Insane Offenders Bill," which became law on the 28th July, 1800. This was the Act which made provision for the detention of insane offenders, acquitted on the ground of insanity, or found insane on arraignment, for whatever length of time might be required by considerations of public safety. This statute, however, only applied to persons charged with offences classed as treason, murder and felony; and it was not until forty years later that, owing to the beneficial results of the former statute, similar provisions were applied to persons charged with misdemeanours.

In the meantime, very soon after the passing of the Act of 1800, the question began to press for settlement: What was to be done with persons acquitted on the ground of insanity under the provisions of that Act? As early as 1807, Mr. Wynne, who did much in his day to improve the treatment of the insane, obtained a Select Committee to inquire into the state of criminal and pauper lunatics; and this is the first appearance, so far as I know, of the term "criminal lunatic" in official documents. The report of Mr. Wynne's Committee was ordered to be printed on the 15th of July, 1807; and this report stated that, from the time of the passing of the Act in 1800, the number of persons detained under its provisions was 37, and the report went on to recommend that a building should be erected for the separate confinement of these persons, and of others who might in future come under the provisions of that Act for offences committed during a state of insanity. But, although this wise recommendation was made so long ago, and although it was the natural corollary of the statute by which a special class of insane persons was marked out, more than fifty years elapsed before full effect was

given to so obviously reasonable a recommendation. At first, criminal lunatics had to remain in gaols, a plan, as Mr. Wynne's Committee reported, equally destructive of all possibility of the recovery of the insane, and of the security and comfort of the other prisoners.

In 1808 the House of Commons presented an address to His Majesty, praying that a separate building might be erected accordingly; but nothing was then done. When, however, Bethlem was rebuilt, in the year 1816, on its present site, a wing, which was called the criminal wing, was erected; but the amount of the provision made was quite inadequate, and in a few years the extent of the accommodation for criminal lunatics at Bethlem had to be doubled, and still without keeping pace with the requirements. In 1835 a Committee of the House of Lords, appointed to inquire into the state of prisons, found therein many persons who had been acquitted on the ground of insanity, and strongly recommended that such persons should be removed from prisons to suitable asylums. The Committee also extended their recommendations to other classes of insane prisoners, with the result that, in 1840, an Act was passed making provision for the removal to asylums of persons certified to be insane after sentence. The effect of this statute was, as might naturally be expected, to rapidly increase the number of criminal lunatics who were sent to ordinary lunatic asylums, whilst a further cause of increase of numbers was soon afterwards developed by the discontinuance of transportation. As a result of this large increase of numbers, an arrangement was entered into, in 1849, between the Secretary of State and the proprietors of Fisherton House Asylum, near Salisbury, under which arrangement accommodation was provided at that asylum for the criminal lunatics who were in excess of the number for whom provision existed at Bethlem; but still, as ever, the extent of the provision lagged behind the requirements, and, to pass over minor details, at last the matter was taken up vigorously, in the year 1852, by the Earl of Shaftesbury, who thus added one more to the many benefits already conferred by him on the most helpless and pitiable members of the human race. Lord Shaftesbury,* after presenting a petition on the 18th of March, 1852, to the House of Lords, from the Chairman of the Visiting Magistrates of the Lunatic Asylum for the County of Leicester, praying for

* Hansard, 3rd s., Vol. cxix., p. 1230.

an alteration of the law respecting criminal lunatics, proceeded to move:—"That an humble address be presented to Her Majesty, praying that Her Majesty will be graciously pleased to take into her consideration the expediency of establishing a State Asylum for the care and custody of those who are denominated criminal lunatics."

His Lordship went on to say that the great care bestowed of late on both our public and our private asylums had called attention to the fact that the custody of these criminal lunatics had been a great bar to the improvement of those institutions. The Commissioners in Lunacy had reported in 1849, 1850, and 1851 to the Lord Chancellor on the annoyances, perils, and injurious effects of the actual system, and had proposed remedies for the system. They had also reported at various times to the Secretary of State, and had prayed for relief, setting forth such circumstances as these—that there was one criminal lunatic who had escaped from Gateshead Fell four times in a few months, and that there was another who had escaped from Hoxton six times in the same period; but all to no purpose. His Lordship further said that the term "criminal lunatic" seemed to him to involve something of a contradiction; nevertheless, it was the ordinary and received term, and the only one that he could use on that occasion.

This definite and vigorous expression of opinion on the part of Lord Shaftesbury soon bore fruit; and, in the year 1856, a site was selected, upon which Broadmoor Asylum was afterwards erected. That asylum was opened in 1863, and I have, in the following tabular statements, attempted to give, in a condensed form, some of the results of its operations during twenty years, thinking that, although it is impossible for me to read these figures to you now, some members of the Association may, perhaps, be interested in glancing over them after they are printed:—

Classification of the Crimes and Sentences of all Patients admitted (including re-admissions) from the opening of the Asylum to the 31st December, 1882.

Crimes.	Total number admitted from the opening of the Asylum down to the 31st December, 1882.			Classified with reference to the Period at which Insanity was recognised.																	
				Certified to be Insane whilst awaiting Trial or Judgment.			Found Insane by Jury on Arraignment.			Acquitted on the ground of Insanity.			Reprieved on the ground of Insanity.			Certified to be Insane whilst undergoing Sentences of Penal Servitude.			Certified to be Insane whilst undergoing shorter terms of Imprisonment.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Murder	237	152	389	33	15	48	40	39	79	138	90	228	17	1	18	9	7	16	—	—	—
Manslaughter	14	9	23	1	4	5	5	1	6	1	1	2	—	—	—	7	3	10	—	—	—
Attempt to murder, maim, etc.... ...	209	36	245	11	1	12	44	5	49	117	25	142	—	—	—	37	5	42	—	—	—
Concealment of Birth	—	3	3	—	—	—	—	2	2	—	—	—	—	—	—	—	—	—	—	1	1
Rape	16	—	16	—	—	—	2	—	2	1	—	1	—	—	—	13	—	13	—	—	—
Assault, common	17	3	20	1	—	1	3	—	3	6	—	6	—	—	—	3	1	4	4	2	6
Do. with intent to ravish	8	—	8	—	—	—	4	—	4	4	—	4	—	—	—	—	—	—	—	—	—
Do. indecent	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—
Unnatural offences	17	—	17	1	—	1	2	—	2	6	—	6	—	—	—	7	—	7	1	—	1
Treasonable and seditious offences ...	7	—	7	1	—	1	3	—	3	2	—	2	—	—	—	1	—	1	—	—	—
Burglary and housebreaking	109	7	116	4	—	4	7	1	8	7	—	7	—	—	—	88	5	93	3	1	4
Robbery on the highway	6	1	7	—	—	—	—	—	—	—	—	—	—	—	—	6	1	7	—	—	—
Robbery with violence	7	2	9	—	—	—	—	—	—	1	—	1	—	—	—	6	1	7	—	1	1
Sheep stealing	8	—	8	—	—	—	—	—	—	2	—	2	—	—	—	5	—	5	1	—	1
Horse stealing	9	—	9	—	—	—	1	—	1	2	—	2	—	—	—	5	—	5	1	—	1
Larceny and petty thefts	241	106	347	1	1	2	7	2	9	7	4	11	—	—	—	222	89	311	4	10	14
Frauds and embezzlements	4	—	4	—	—	—	—	—	—	—	—	—	—	—	—	4	—	4	—	—	—
Receiving stolen goods...	9	—	9	—	—	—	—	—	—	—	—	—	—	—	—	9	—	9	—	—	—
Obtaining goods by false pretences ...	4	—	4	—	—	—	—	—	—	1	—	1	—	—	—	3	—	3	—	—	—
Arson and malicious burning	87	7	94	3	—	3	18	2	20	27	1	28	—	—	—	39	4	43	—	—	—
Wilful damage and other malicious offences	3	3	6	—	—	—	1	—	1	1	—	1	—	—	—	1	—	1	—	3	3
Forgery	7	—	7	—	—	—	—	—	—	—	—	—	—	—	—	7	—	7	—	—	—
Uttering counterfeit coin, coining, etc....	10	2	12	—	—	—	—	—	—	—	—	—	—	—	—	10	2	12	—	—	—
Riot and breach of the peace	1	1	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	2
For want of sureties	1	3	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	3	4
Libel	2	—	2	1	—	1	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—
Under the Vagrant Laws	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1
Night poaching, being armed	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—
Felony (not otherwise described) ...	45	9	54	1	—	1	—	1	1	5	2	7	—	—	—	38	4	42	1	2	3
Threatening by letter	6	1	7	—	—	—	2	—	2	3	—	3	—	—	—	1	1	2	—	—	—
Other misdemeanours	3	1	4	1	—	1	1	—	1	—	—	—	—	—	—	1	—	1	—	1	1
Deserters from the Army and Navy ...	6	—	6	—	—	—	—	—	—	—	—	—	—	—	—	5	—	5	1	—	1
Insubordination as soldiers	29	—	29	—	—	—	—	—	—	—	—	—	—	—	—	29	—	29	—	—	—
Attempting self-murder	4	—	4	—	—	—	—	—	—	4	—	4	—	—	—	—	—	—	—	—	—
Total	1129	346	1475	59	21	80	140	53	193	336	123	459	17	1	18	558	123	681	19	25	44

Classification of the Crimes and Sentences of all Patients discharged out of Custody from the opening of the Asylum down to the 31st of December, 1882.

Crimes.	Total number discharged out of Custody down to the 31st December, 1882.			Classified with reference to the Period at which Insanity was recognised.																	
				Certified to be Insane whilst awaiting Trial or Judgment.			Found Insane by Jury on Arraignment.			Acquitted on the ground of Insanity.			Reprieved on the ground of Insanity.			Certified to be Insane whilst undergoing Sentences of Penal Servitude.			Certified to be Insane whilst undergoing shorter terms of Imprisonment.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Murder	16	40	56	—	4	4	1	5	6	14	31	45	—	—	—	1	—	1	—	—	—
Manslaughter	1	—	1	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—
Attempt to murder, maim, &c.	22	10	32	—	—	—	2	2	4	18	8	26	—	—	—	2	—	2	—	—	—
Assault (common)	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1
Treasonable and seditious offences ...	2	—	2	—	—	—	—	—	—	1	—	1	—	—	—	1	—	1	—	—	—
Burglary and housebreaking	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—
Robbery with violence	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
Horse-stealing	1	—	1	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—
Larceny and petty thefts...	6	7	13	—	—	—	1	1	2	4	2	6	—	—	—	1	4	5	—	—	—
Arson and malicious burning	6	—	6	—	—	—	—	—	—	6	—	6	—	—	—	—	—	—	—	—	—
Forgery	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—
Uttering counterfeit coin, coining, &c. ...	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—
Felony (not otherwise described)... ...	—	2	2	—	—	—	—	—	—	—	2	2	—	—	—	—	—	—	—	—	—
Threatening by letter	1	—	1	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—
Attempting self-murder	1	—	1	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—
Total...	60	60	120	—	4	4	6	8	14	45	43	88	—	—	—	8	4	12	1	1	2

CLASSIFICATION of the CRIMES and SENTENCES of all Patients removed, on their recovery, to different prisons, either for trial, or in order to complete their sentences, from the opening of the Asylum down to the 31st December, 1882.

Crimes.	Total number removed, on recovery, to Prisons, down to 31st December, 1882.			Classified with reference to the Period at which Insanity was recognised.																	
				Certified to be Insane whilst awaiting Trial or Judgment.			Found Insane by Jury on Arraignment.			Acquitted on the ground of Insanity.			Reprieved on the ground of Insanity.			Certified to be Insane whilst undergoing Sentences of Penal Servitude.			Certified to be Insane whilst undergoing shorter terms of Imprisonment.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Murder	1	1	2	1	—	1	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—
Attempt to murder, maim, &c.... ...	3	—	3	—	—	—	—	—	—	—	—	—	—	—	—	3	—	3	—	—	—
Burglary and housebreaking	7	1	8	1	—	1	—	—	—	—	—	—	—	—	—	6	1	7	—	—	—
Sheep stealing	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—
Larceny and petty theft	30	7	37	—	—	—	2	—	2	—	—	—	—	—	—	28	7	35	—	—	—
Arson and malicious burning	2	1	3	—	—	—	—	—	—	—	—	—	—	—	—	2	1	3	—	—	—
Forgery	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—
Uttering counterfeit coin, coining, &c....	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—
Felony (not otherwise described) ...	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—
Insubordination as soldiers	3	—	3	—	—	—	—	—	—	—	—	—	—	—	—	3	—	3	—	—	—
Total	50	10	60	2	—	2	2	—	2	—	—	—	—	—	—	46	10	56	—	—	—

Classification of the Crimes and Sentences of all Patients transferred to other Asylums or Workhouses from the opening of the Asylum down to the 31st of December, 1882. (Not including Patients transferred to Perth or Fisherton whilst still criminal lunatics.)

Crimes.	Total Number transferred to other Asylums down to 31 December, 1882.			Classified with reference to the Period at which Insanity was recognised.																	
				Certified to be Insane whilst awaiting Trial or Judgment.			Found Insane by Jury on Arraignment.			Acquitted on the ground of Insanity.			Reprieved on the ground of Insanity.			Certified to be Insane whilst undergoing sentences of Penal Servitude.			Certified to be Insane whilst undergoing shorter terms of Imprisonment.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Murder	1	1	2	—	—	—	1	—	1	—	1	1	—	—	—	—	—	—	—	—	—
Manslaughter	4	1	5	—	—	—	—	—	—	—	—	—	—	—	—	4	1	5	—	—	—
Attempt to murder, maim, &c.	23	3	26	—	—	—	—	—	—	1	—	1	—	—	—	22	3	25	—	—	—
Concealment of birth	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
Rape	7	—	7	—	—	—	—	—	—	—	—	—	—	—	—	7	—	7	—	—	—
Assault, common	5	3	8	—	—	—	—	—	—	—	—	—	—	—	—	3	1	4	2	2	4
Assault, indecent	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—
Unnatural offences	7	—	7	—	—	—	1	—	1	1	—	1	—	—	—	4	—	4	1	—	1
Burglary and housebreaking	76	3	79	—	—	—	2	—	2	2	—	2	—	—	—	69	2	71	3	1	4
Robbery on the highway	5	1	6	—	—	—	—	—	—	—	—	—	—	—	—	5	1	6	—	—	—
Robbery with violence	5	1	6	—	—	—	—	—	—	—	—	—	—	—	—	5	1	6	—	—	—
Sheep-stealing	2	—	2	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	1	—	1
Horse-stealing	6	—	6	—	—	—	—	—	—	—	—	—	—	—	—	5	—	5	1	—	1
Larceny and petty thefts	163	56	219	—	—	—	—	—	—	—	—	—	—	—	—	159	49	208	4	7	11
Frauds and embezzlements	3	—	3	—	—	—	—	—	—	—	—	—	—	—	—	3	—	3	—	—	—
Receiving stolen goods	7	—	7	—	—	—	—	—	—	—	—	—	—	—	—	7	—	7	—	—	—
Obtaining goods by false pretences	4	—	4	—	—	—	—	—	—	1	—	1	—	—	—	3	—	3	—	—	—
Arson and malicious burning	32	1	33	—	—	—	1	—	1	—	—	—	—	—	—	31	1	32	—	—	—
Wilful damage & other malicious offences	1	3	4	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	3	3
Forgery	3	—	3	—	—	—	—	—	—	—	—	—	—	—	—	3	—	3	—	—	—
Uttering counterfeit coin, coining, &c.	7	1	8	—	—	—	—	—	—	—	—	—	—	—	—	7	1	8	—	—	—
Riot and breach of the peace	1	1	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	2
For want of sureties	1	3	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	3	4
Under the Vagrancy Laws	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1
Night-poaching, being armed	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—
Felony (not otherwise described)	36	4	40	—	—	—	—	—	—	—	—	—	—	—	—	35	2	37	1	2	3
Threatening by letter	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—
Other misdemeanours	1	1	2	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	1	1
Deserters from the Army and Navy	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—
Insubordination as soldiers	3	—	3	—	—	—	—	—	—	—	—	—	—	—	—	3	—	3	—	—	—
Total	408	84	492	—	—	—	5	—	5	5	1	6	—	—	—	382	62	444	16	21	37

Those included in these two columns were transferred upon expiration of sentence.

CLASSIFICATION of CRIMES and SENTENCES of Patients transferred to Perth or Fisherton, whilst still criminal lunatics, from the opening of the Asylum down to the 31st of December, 1882.

Crimes.	Total number to the 31st Dec., 1882.			Classified with reference to the Period at which Insanity was recognised.																	
				Certified to be Insane whilst awaiting Trial or Judgment.			Found Insane by Jury on Arraignment.			Acquitted on the ground of Insanity.			Reprieved on the ground of Insanity.			Certified to be Insane whilst undergoing Sentences of Penal Servitude.			Certified to be Insane whilst undergoing shorter terms of Imprisonment.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Murder	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—
Attempt to murder, maim, &c. ...	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—
Rape	2	—	2	—	—	—	—	—	—	—	—	—	—	—	—	2	—	2	—	—	—
Unnatural offence	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—
Burglary and housebreaking	5	—	5	—	—	—	—	—	—	—	—	—	—	—	—	5	—	5	—	—	—
Larceny	8	2	10	—	—	—	—	—	—	—	—	—	—	—	—	8	2	10	—	—	—
Arson	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—
Total	18	3	21	—	—	—	—	—	—	—	—	—	—	—	—	18	3	21	—	—	—

Classification of the Crimes and Sentences of Patients who have escaped at various times from the opening of the Asylum down to the 31st of December, 1882, and who were not re-captured before making up the books on the 31st of December of the year of escape.

Crimes.	Total Number to the 31st December, 1882.			Classified with reference to the period at which Insanity was recognised.																	
				Certified to be Insane whilst awaiting Trial or Judgment.			Found Insane by Jury on Arraignment.			Acquitted on the ground of Insanity.			Reprieved on the ground of Insanity.			Certified to be Insane whilst undergoing sentences of Penal Servitude.			Certified to be Insane whilst undergoing shorter terms of Imprisonment.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Murder	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—
Rape	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—
Burglary and housebreaking	2	—	2	—	—	—	—	—	—	—	—	—	—	—	—	2	—	2	—	—	—
Larceny	1	1	2	—	—	—	—	—	—	—	—	—	—	—	—	1	1	2	—	—	—
Total	5	1	6	—	—	—	—	—	—	—	—	—	—	—	—	5	1	6	—	—	—

N.B.—Three of the above persons were re-captured in subsequent years.

Classification of the Crimes and Sentences of all Patients who died from the opening of the Asylum down to the 31st of December, 1882.

Crimes.	Total Number of Deaths down to Dec. 31, 1882.			Classified with reference to the Period at which Insanity was recognised.																	
				Certified to be Insane whilst awaiting Trial or Judgment.			Found Insane by Jury on Arraignment.			Acquitted on the ground of Insanity.			Reprieved on the ground of Insanity.			Certified to be Insane whilst undergoing sentences of Penal Servitude.			Certified to be Insane whilst undergoing shorter terms of Imprisonment.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Murder	62	25	87	11	3	14	13	11	24	36	7	43	1	—	1	1	4	5	—	—	—
Manslaughter	2	2	4	—	1	1	1	—	1	—	1	1	—	—	—	1	—	1	—	—	—
Attempt to murder, maim, &c. ...	50	4	54	6	—	6	14	—	14	27	3	30	—	—	—	3	1	4	—	—	—
Rape	4	—	4	—	—	—	—	—	—	1	—	1	—	—	—	3	—	3	—	—	—
Assault, common	3	—	3	—	—	—	2	—	2	1	—	1	—	—	—	—	—	—	—	—	—
Do. with intent to ravish ...	3	—	3	—	—	—	2	—	2	1	—	1	—	—	—	—	—	—	—	—	—
Unnatural offences	3	—	3	1	—	1	—	—	—	1	—	1	—	—	—	1	—	1	—	—	—
Treasonable and seditious offences ...	1	—	1	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Burglary and housebreaking ...	6	—	6	—	—	—	1	—	1	1	—	1	—	—	—	4	—	4	—	—	—
Robbery on the highway ...	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—
Robbery with violence	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—
Sheep-stealing	3	—	3	—	—	—	—	—	—	—	—	—	—	—	—	3	—	3	—	—	—
Horse-stealing	1	—	1	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—
Larceny and petty thefts ...	27	18	45	1	1	2	1	1	2	3	2	5	—	—	—	22	11	33	—	3	3
Receiving stolen goods... ...	2	—	2	—	—	—	—	—	—	—	—	—	—	—	—	2	—	2	—	—	—
Arson and malicious burning ...	22	4	26	1	—	1	7	2	9	11	1	12	—	—	—	3	1	4	—	—	—
Forgery	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—
Uttering counterfeit coin, coining, &c.	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—
Libel	1	—	1	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—
Felony (not otherwise described) ...	4	3	7	1	—	1	—	1	1	1	—	1	—	—	—	2	2	4	—	—	—
Threatening by letter	1	—	1	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—
Deserters from the Army and Navy ...	2	—	2	—	—	—	—	—	—	—	—	—	—	—	—	2	—	2	—	—	—
Insubordination as soldiers	5	—	5	—	—	—	—	—	—	—	—	—	—	—	—	5	—	5	—	—	—
Other misdemeanours	1	—	1	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—
Total	207	56	263	22	5	27	43	15	58	85	14	99	1	—	1	56	19	75	—	3	3

Classification of the Crimes and Sentences of Patients remaining in the Asylum on 31st December, 1882.

Crimes.	Total number remaining in the Asylum on the 31st of December, 1882.			Classified with reference to the Period at which Insanity was recognised.																	
				Certified to be Insane whilst awaiting Trial or Judgment.			Found Insane by Jury on Arraignment.			Acquitted on the ground of Insanity.			Reprieved on the ground of Insanity.			Certified to be Insane whilst undergoing Sentences of Penal Servitude.			Certified to be Insane whilst undergoing shorter terms of Imprisonment.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Murder	155	85	240	21	8	29	25	23	48	88	51	139	16	1	17	5	2	7	—	—	—
Manslaughter	7	6	13	1	3	4	3	1	4	1	—	1	—	—	—	2	2	4	—	—	—
Attempt to murder, maim, &c....	111	18	129	5	1	6	28	3	31	71	14	85	—	—	-	7	—	7	—	—	—
Concealment of birth	—	2	2	—	—	—	—	2	2	—	—	—	—	—	—	—	—	—	—	—	—
Rape	2	—	2	—	—	—	2	—	2	—	—	—	—	—	—	—	—	—	—	—	—
Assault, common	8	—	8	1	—	1	1	—	1	5	—	5	—	—	—	—	—	—	1	—	1
Assault with intent to ravish ...	5	—	5	—	—	—	2	—	2	3	—	3	—	—	—	—	—	—	—	—	—
Unnatural offence	6	—	6	—	—	—	1	—	1	4	—	4	—	—	—	1	—	1	—	—	—
Treasonable and seditious offences ...	4	—	4	—	—	—	3	—	3	1	—	1	—	-	—	—	—	—	—	—	—
Burglary and housebreaking	12	3	15	3	—	3	4	1	5	4	—	4	—	—	—	1	2	3	—	—	—
Robbery with violence	1	—	1	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—
Sheep-stealing	2	—	2	—	—	—	—	—	—	2	—	2	—	—	—	—	—	—	—	—	—
Horse-stealing	1	—	1	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—
Larceny and petty thefts	6	15	21	—	—	—	3	—	3	—	—	—	—	—	—	3	15	18	—	—	—
Arson and malicious burning	24	1	25	2	—	2	10	—	10	10	—	10	—	—	—	2	1	3	—	—	—
Wilful damage	2	—	2	—	—	—	1	—	1	1	—	1	—	—	—	—	—	—	—	—	—
Forgery	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—
Uttering counterfeit coin, &c.	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—
Deserters from the Army and Navy ...	3	—	3	—	—	—	—	—	—	—	—	—	—	—	—	2	—	2	1	—	1
Felony	4	—	4	—	—	—	—	—	—	4	—	4	—	—	—	—	—	—	—	—	—
Other misdemeanours	1	—	1	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sending threatening letters	3	1	4	—	—	—	1	—	1	2	—	2	-	-	—	—	1	1	—	—	—
Insubordinate as soldiers	18	—	18	—	—	—	—	—	—	—	—	—	—	—	—	18	—	18	—	—	—
Attempting self-murder	3	—	3	—	—	—	—	—	—	3	—	3	—	—	—	—	—	—	—	—	—
Libel	1	—	1	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Embezzlement	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—
Total	381	132	513	35	12	47	84	30	114	201	65	266	16	1	17	43	24	67	2	—	2

The following FIGURES, extracted from the ANNUAL VOLUMES of the JUDICIAL STATISTICS for ENGLAND and WALES, show the RATE of MORTALITY which has prevailed amongst CRIMINAL LUNATICS since the year 1856, and also show the Extent to which the Rate of Mortality, and the Degree of safe Custody, have been affected by the opening of Broadmoor Asylum.

In this table each year ends on the 29th of September.

(1.) Returns relating to the seven years immediately preceding the opening of Broadmoor.

Year.	Total Number of Criminal Lunatics under Detention in England and Wales during each Year.	Number of Deaths in each Year.	Number who escaped, and who were not recaptured before the end of each Year.
1856	686	21	6
1857	749	39	7
1858	798	33	1
1859	901	43	4
1860	957	51	9
1861	970	49	4
1862	1,017	43	7
Totals ...	6,078	279	38

(2.) Returns relating to the period subsequent to the opening of Broadmoor.

	In all other ASYLUMS in ENGLAND and WALES excepting Broadmoor.			IN BROADMOOR.		
Year.	Total Number of Criminal Lunatics under Detention during each Year.	No. of Deaths in each Year.	Number who escaped, and who were not recaptured before the end of each Year.	Total Number of Criminal Lunatics under Detention during each Year.	No. of Deaths in each Year.	Number who escaped, and who were not recaptured before the end of each Year.
1863	1,050	53	6	98	—	—
1864	1,017	38	6	292	4	1
1865	860	53	5	446	12	—
1866	723	49	2	455	18	—
1867	767	49	2	477	10	—
1868	309	11	3	644	7	—
1869	250	21	6	497	14	2
1870	310	21	4	488	13	—
1871	338	22	6	524	12	—
1872	313	20	3	562	10	—
1873	278	12	5	559	11	2
1874	299	21	3	554	13	—
1875	319	31	3	544	19	—
1876	338	18	6	546	16	—
1877	348	23	6	541	15	—
1878	341	15	3	526	10	—
1879	323	15	4	528	23	—
1880	316	16	1	532	16	—
1881	318	14	3	554	12	—
Totals...	8,817	502	77	9,367	235	5

The foregoing figures, reduced to percentages for the sake of more ready comparison, give the following results :—

Description of Asylums.	Rate per cent. of Deaths calculated upon the aggregate of the Yearly Totals of Numbers of Criminal Lunatics under Treatment during the Periods specified.	Rate per cent. of Instances in which Criminal Lunatics escaped and were not recaptured before the end of each year during the Periods specified.
In all the Asylums in England and Wales, taken together, in which criminal lunatics were confined during the seven years immediately preceding the opening of Broadmoor, from 1856 to 1862 inclusive ...	4·59	0·62
In all the Asylums in England and Wales, taken together, in which criminal lunatics were confined from 1863 to 1881 inclusive, with the Exception of Broadmoor ...	5·69	0·87
In Broadmoor, from the date of its opening in 1863 to the 29th of September, 1881 ...	2·50	0·05

The following Tabular Statement shows every instance of Escape that has taken place, from the opening of the Asylum, in 1863, up to the 31st of December, 1882, together with the date of recapture, where recapture has been effected.

Under Detention during Her Majesty's pleasure.		Under current Sentences of Penal Servitude or Imprisonment.		Date of escape.	Date of recapture.
M.	F.	M.	F.		
—	—	—	1	6th October, 1863 ...	6th October, 1863.
—	—	—	1	8th June, 1864 ...	9th June, 1864.
—	—	1	—	19th September, 1864 ...	8th November, 1864.
—	—	—	1	29th October, 1864 ...	29th October, 1864.
1	—	—	—	25th November, 1864 ...	25th November, 1864.
—	—	1	—	8th April, 1865	9th April, 1865.
—	—	1	—	8th ,, ,, ...	9th ,, ,,
—	—	1	—	21st May, 1865	21st May, 1865.
1	—	—	—	26th July, 1867	26th July, 1867.
1	—	—	—	29th September, 1868 ...	2nd October, 1868.
—	—	1	—	4th November, 1868 ...	9th February, 1869.
—	—	1	—	8th ,, ,, ...	30th November, 1868.
—	—	1	—	8th ,, ,, ...	6th January, 1869.
—	—	1	—	25th December, 1868 ...	Not recaptured.
—	—	—	1	27th July, 1869	Not recaptured.
1	—	—	—	11th January, 1871 ...	16th January, 1871.
—	—	1	—	14th August, 1871 ...	20th August, 1871.
1	—	—	—	10th December, 1872 ...	10th December, 1872.
—	—	1	—	26th May, 1873	26th May, 1873.
—	—	1	—	12th July, 1873	Not recaptured.
—	—	1	—	7th August, 1873 ...	29th September, 1873.
—	—	1	—	12th November, 1873 ...	13th November, 1873.
—	—	1	—	6th December, 1874 ...	6th December, 1874.
1	—	—	—	12th October, 1878 ...	13th October, 1878.

If time had permitted, it would have been interesting to note the steps which, in the meantime, had been taken in the sister island.

Long after the date at which provision was made, in connection with Bethlem Hospital, for some of the criminal lunatics of England, the criminal lunatics of Ireland were still detained in gaols; and their pitiable state, in 1843, is graphically recorded in the report of a Parliamentary Commission. Those who then pleaded for the Irish criminal lunatics asked for arrangements similar to those existing in England, or, if that was impossible, prayed that the criminal lunatics of Ireland might be sent over to England to be accommodated at Bethlem. Something much better than that was, however, done for them, by providing the separate asylum at Dundrum, which thus became, in 1850, the first separate and distinct asylum set apart especially and entirely for criminal lunatics.

Broadmoor Asylum was not actually finished and opened until 1863; and it may be observed, in passing, that, inasmuch as Dundrum is one-third of the size of Broadmoor, whilst the population of Ireland is only one-fifth of that of England, Ireland is, at the present time, provided with a larger proportionate amount of accommodation than England.

I had prepared a short analysis of the Report, already alluded to, of the Commission recently appointed to inquire into the whole question of criminal lunacy, but time warns me to pass on; and this I do the more readily as the Report itself is accessible to all.

I have no doubt that most of the members of this Association have read that report, although I cannot of course pretend to form any opinion as to what conclusions those members who have read it may have arrived at.

Probably one of the chief points upon which a difference of opinion may have arisen has been the question of the removal to county asylums of persons whose sentences have expired, and who are no longer "criminal lunatics," as the term is defined by statute; but upon this point I think that some amount of misunderstanding exists.

The idea seems to be prevalent that the removal of such persons is an arrangement applicable only to Broadmoor; but this is not so. At the expiration of the sentence the patient ceases to be ranked as a criminal, not only in England, but also in Ireland and in Scotland; and, therefore, at Dundrum those whose sentences have expired are then removed. The same plan is employed in Scotland; and in the ninth report of the

General Board of Commissioners in Lunacy for Scotland the following passage occurs :—

"Criminals who become insane in prisons are removed at the expiration of their sentences to the local prison from which they were received, in order to be liberated. As a rule, they are, on liberation, immediately taken in charge by the police, or by the inspector of the poor, and placed in the asylum of their district as ordinary patients. In this way the accumulation of criminal lunatics in the lunatic department of the prison is, in some degree, prevented, as well as the growth of their numbers as a distinct class of the insane. This procedure helps to account for the comparatively small number of so-called criminal lunatics in Scotland."

An opposite plan would multiply the number so enormously that three or four establishments would be required; and, besides this, if a large class of criminal lunatics were created in that way, it would be necessary to provide for them specially. One chief point that increases the expense of the care of criminal lunatics is the necessity of making greater provision for their safe custody. Those who are not familiar with the working of an establishment for criminal lunatics can scarcely realise how much that element increases the actual cost of maintenance. It is, therefore, in the interests of the State, very desirable that no larger number should be included in the class of criminal lunatics than is absolutely necessary. The person who has come to the end of his sentence has actually paid the penalty, and there is a natural feeling against making anyone pay a penalty twice over. Many of these patients were really lunatics at the time of being sentenced, and, if the matter be regarded from every point, it will probably be found that the greatest hardship lay in sentencing them.

The evils of sentencing persons who are really insane to penal servitude or imprisonment, are much graver than is commonly supposed. If the punishment is to be carried out in its entirety it necessarily involves much suffering; indeed, penal servitude has been spoken of by one of the most eminent judges as "white slavery;" whilst if the sentence is not to be carried out thoroughly, but if the understanding is that it is to be modified in its severity, so as to suit the mental condition of the prisoner, it were surely better, in doubtful cases, not to pass sentence until after a satisfactory examination of the mental condition of the prisoner had been made. To sentence an insane person to the same punishment as would have been

incurred by him if he had been sane, acts as an encouragement to the practice of allowing insane persons to remain at large until after the commission by them of some act seriously hurtful to the community; whilst, on the other hand, every instance in which a prisoner is found, on his trial, to be insane acts as a reminder to the community that, little or much, it has failed in its duty in not having prevented the commission of the crime by placing the prisoner under proper care at an earlier date.

Those who may chance to have to endeavour to arrive at a decision as to whether a prisoner should be treated as a rational being, and be subjected to the ordinary punishment of his crime, or whether he should be treated as irrational, and be detained as a criminal lunatic—a question often involving much doubt and difficulty even when, as rarely happens, all the facts of the case can be clearly made out—will hail with gratification the recent work of Mr. Justice Stephen, a review of which has already appeared in the Journal.

Mr. Justice Stephen writes that he regrets to be unable to attend this meeting to-day, being compelled to be absent from London on circuit. He adds, in his letter to me, that he is pleased to find that so much interest is taken in his work, and goes on to say that the part of it which relates to madness was written with a sincere desire to conciliate the medical profession on a point upon which there has been much misunderstanding.

A reference to Mr. Justice Stephen's work will show that the intention thus expressed in his letter has been fully carried out. Before writing his chapter on the "Relation of Madness to Crime," the learned judge read the works of some of the leading medical writers upon insanity in this country and in Germany, including those of Drs. Bucknill, Hack Tuke, Maudsley and Griesinger; and that he has fully mastered the subject-matter of those works will, I am sure, be most fully admitted by any medical witness who may in the future be called to give evidence before him on the subject of insanity. The following extract gives a good indication of the manner in which he handles his subject:—

"What then is the meaning of a maniac 'labouring under such a defect of reason that he does not know that he is doing what is wrong?' It may be said that this description would apply only to a person in whom madness took the form of ignorance of the opinions of mankind in general as to the wickedness of particular crimes, murder, for instance, and such a state of mind would, I suppose, be so rare as to be practically

unknown. This seems to me to be a narrow view of the subject, not supported by the language of the judges. I think that anyone would fall within the description in question who was deprived by disease affecting the mind of the power of passing a rational judgment on the moral character of the act which he meant to do. Suppose, for instance, that by reason of disease of the brain a man's mind is filled with delusions which, if true, would not justify or excuse his proposed act, but which in themselves are so wild and astonishing as to make it impossible for him to reason about them calmly, or to reason calmly on matters connected with them. Suppose, too, that the succession of insane thoughts of one kind and another is so rapid as to confuse him, and finally, suppose that his will is weakened by his disease, that he is unequal to the effort of calm sustained thought upon any subject, and especially upon subjects connected with his delusion, can he be said to know, or have a capacity of knowing, that the act which he proposes to do is wrong ? I should say he could not." *

A little further on the learned judge writes :—

"The proposition, then, which I have to maintain and explain is that, if it is not, it ought to be the law of England, that no act is a crime if the person who does it, is at the time when it is done, prevented either by defective mental power or by any disease affecting his mind from controlling his own conduct, unless the absence of the power of control has been produced by his own default." †

Here, then, we have a very true and admirable explanation of words which have so often proved a stumbling block ; and we have also an explicit statement to the effect that the presence or absence of the power of control is a matter to be taken into consideration, with reference to the question of legal responsibility.

It is well to be reminded of this latter point, because there is danger, perhaps, of its being occasionally overlooked. But in the Lumleian Lectures given in this College by a distinguished Fellow, in 1878, I find the case of Dove referred to, which occurred thirty years ago. Lord Bramwell, then Baron Bramwell, was the presiding judge, and tried the case. In charging the jury, he said :—

"No doubt insanity is strong evidence of innocence, but it is not conclusive evidence ; and the question whether or not its existence rebuts the presumption of guilt in any particular case is entirely for the jury. The questions which by the law had

* "Hist. Crim. Law of England." Stephen. Vol. ii., p. 163.

† Vol. ii., p. 168, *op. cit.*

to be left to the jury were these: Did he know he was doing wrong? Could he help it?" That was the direction to the jury of one of the judges more than thirty years ago. It was not very long after the debate in the House of Lords on the celebrated McNaughten case; and it is, therefore, certain that the recognition by the law of England of power of control as an element in the case is not an innovation. "Could he help it?" were the words of the question left by Lord Bramwell to the jury, but the learned judge explained carefully that what he meant by the question was this: "If somebody had been standing over Dove with a pistol, and would have shot him if he poisoned his wife, would he have done it?" This is certainly a very forcible mode of putting the question; but, if it were settled that Dove knew at the time of its commission that his act was wrong, in the sense in which Mr. Justice Stephen takes the words, it is a mode of putting it for which much could doubtless be said.

Supposing we were to ask the same question with regard to Hadfield, when he fired at King George III., the answer might, possibly, also be in the negative, because Hadfield wished to be hanged, and if he had been shot, one of his objects would have been defeated; but then Hadfield is regarded by Mr. Justice Stephen,* and in that view of the matter I entirely concur, as a person who did not know, when he committed his act, that it was wrong.

Where premeditation is shown by an insane person in the commission of an insane act, the loss of control is not a loss of control over action, but a loss of control over the train of thought which appears to the individual to make the action desirable. The question as it presents itself to the mind of the medical man must ever be: Is the accused insane, and is the act for which he is being tried the product, or result, of his insanity? If this question be decided affirmatively in any particular case, it is practically equivalent to deciding that the accused did not know right from wrong with respect to the act in question; because an insane man can no more be said to know right from wrong with regard to an act done by him, as the result of his delusions or mental derangement, than he can be expected to estimate rightly the character of his delusions themselves. Insane persons who commit murder do not usually commit the act as the result of sudden impulse. It is commonly a matter they have thought over and intended to do for a considerable time, insane though they may be.

* Vol. ii., p. 167, *op. cit.*

A very interesting case, from which much may be learned, is recorded by Lord Blackburn in his evidence given before the Homicide Law Amendment Committee.

Lord Blackburn, before relating the case, made these observations: "I have read every definition (of insanity) which I ever could meet with, and never was satisfied with one of them, and have endeavoured in vain to make one satisfactory to myself. I verily believe that it is not in human power to do it. You must take it that in every individual case you must look at the circumstances and do the best you can to say whether it was the disease of the mind which was the cause of the crime or the party's criminal will. But this I am clear about: Whatever definition you give of insanity, it should apply to all crimes." And I should like to say, in passing, that this last point is one which cannot too often be urged.

Lord Blackburn then goes on to relate the case to which I refer, of a woman who had cut the throats of her infant and of an older child, aged 15, killing the former, and who would have killed another of her children if she had not been diverted from her intention.

I cannot omit here to say that this case has also been referred to by a veteran member of this Association in the Lumleian Lectures delivered by him in this College in 1878, and to express the fervent hope that those most instructive and valuable lectures may soon be reprinted in a permanent form.

Lord Blackburn says:—"The facts were these: The woman had more than once been insane, the insanity being principally brought on by suckling her child too long; that was the cause that had produced it before. She was living with her husband, and had the charge of this girl, a girl of about 15, an impotent girl, who lay in her bed all day. She was very kind to her, and treated her very well. They were miserably poor, and, very much owing to that, she continued to nurse her boy till he was nearly two years old; and suddenly, when in this state, she one morning, about 11 o'clock, went to the child, lying there in bed, aged 15, and deliberately cut her throat. Then she went toward her own child, a girl of five or six years of age, of whom she was exceedingly fond, and the girl, hearing a noise, looked up and said, 'What are you doing?' 'I have killed Olivia, and I am going to kill you,' was the answer. The child, fortunately, instead of screaming threw her arms round her mother's neck and said, 'No, I know you would not hurt your darling little Mopsy.' The woman dropped the

child, went downstairs, and went into a neighbour's house, told her what she had done, that she had killed Olivia and was going to kill Mary, 'but when the darling threw its arms round my neck I had not the heart to do it.'"

Lord Blackburn continues: "She clearly knew right from wrong, and knew the character of her act; for some little time after that she talked rationally enough, but before night she was sent to a lunatic asylum, raving mad, and, having recovered, she was brought to be tried before me at a subsequent assizes. On the definition in McNaughten's case, she did know right from wrong. She did know the quality of her act, and was quite aware of what she had done; but I feel it impossible to say that she should be punished. If I had read the definition in McNaughten's case and said, 'Do you bring her within that?' the jury would have taken the bit in their own teeth and said, 'Not guilty on the ground of insanity.' I did not do that; I told them that there were exceptional cases, and on that the jury found her not guilty on the ground of insanity, and I think rightly."

My present object in referring to this case is to point out that the word "suddenly," used to express the manner in which the poor woman killed her child, is liable to be misleading. The woman became an inmate of Broadmoor, and told me all about the matter. She said that she was very much depressed and weakened by suckling her infant, and that the catamenia had returned, and she had suffered a great deal from hæmorrhage, and, on the previous day, Sunday, she knew she was "getting bad again"—to use her own phrase. Two years before she committed this murder, she had attempted to drown herself and her child, but was rescued. She says she could not accurately describe what she felt, but she remembers that she did not want to live, and she felt it to be a right thing to kill the children before she killed herself. She says also, and this is the point to which I wish to call your attention, that she lay awake the whole of the Sunday night harbouring and pondering over her intention. She says that when her husband got up in the morning he said, "How are you?" She said, "Better," in order to induce him to go to his work and leave her; and then, after her husband had gone, she committed the murder. This is the history of all the cases of this kind of which I have been able to ascertain the real facts. The acts, in the absence of delirium, or sudden provocation, are commonly premeditated, and are the result of delusion, or, what comes to be same thing, of an insane train of thought; and these cases must, therefore,

be ranked in the same category as the case of Hadfield. The poor woman, whose case is so graphically related by Lord Blackburn, was unquestionably insane, and unable to rightly estimate the moral character of her act; but we must not overlook the lesson to be learned from the fact that the act was premeditated, and that the opportunity was carefully planned. The premeditated act was dwelt upon and thought over during the whole night; and the question arises as to what is understood when it is said that she could not control her conduct. She controlled herself the whole night. She controlled herself when she said to her husband that she was better. But, suppose we go deeper, and find that her reason was deranged, and that she was indeed in that condition which Mr. Justice Stephen says is really what he thinks the law means, when speaking of incapacity of knowing that the act was wrong. We find then truly a want of power of control, but it is a want of power of controlling the mental operations that lead to action. We are all of us familiar with the strange things that a patient, in an early stage of mania, does, that cannot by any possibility be of any advantage to him to do. Can we say that he knows clearly that those things are wrong? If so, why does he do them? The instances in which an insane person does things that are detrimental to him, whilst thinking that he is right in doing them, are so common as to run the risk of passing unheeded, and, therefore, I would ask your indulgence whilst I attempt to illustrate the point in question by alluding to a case now under my care. It is that of a soldier who shot a comrade, some fifteen years ago, in the hope that he might be hanged, wishing, in fact, to commit suicide in an indirect manner. After a time he recovered, to a great extent, and, for many years, he was comparatively well. He wrote many petitions to the Home Office, praying to be discharged, and so sensible were his letters that they were often referred to me for my report as to whether it would be safe to discharge him. My opinion was, however, that he was not a safe person to be at large. Recently he has had another acute attack of mania; and, whilst this attack was coming on, but before it had declared itself by any very well-marked signs, he wrote to the Secretary of State a petition praying for his discharge, and then wound up the petition, which was, in other respects, properly worded, as follows:—"And pardon me for saying, may the Devil sweat the hindmost." Now, did he realise that he was doing wrong when he wrote those words? I told him the next day that I had kept the petition on account of its strange

ending, upon which he said, "I wish you had sent it all the same. The Secretary of State will understand that."

This expression of opinion on the patient's part must have been the result of a condition of mind in which he was not capable of realizing the true character of the words that he had used. Two days later, he asked me to strangle one of the attendants, saying that he would have done so himself, and saved me the trouble, if he had had the opportunity. Supposing that he had succeeded in killing some one, would it have been right to consider the act as being the result of a want of control over conduct, or as being indicative of a sudden and uncontrollable impulse, or as being due to a mental condition in which, to use Mr. Justice Stephen's words, the man was "incapacitated from forming a calm estimate of the moral character of his act, in other words, had not a capacity of knowing that it was wrong?" *

I have ventured to occupy some of your time this afternoon with the consideration of this exposition by Mr. Justice Stephen of the criminal law in relation to madness, because the matter certainly is one upon which there has, as the learned judge says, been much misunderstanding. I feel convinced, however, that this misunderstanding has been due entirely to the inherent difficulties of the problem. It is possible that some of my hearers may not agree with the interpretation given by Mr. Justice Stephen, but I feel very strongly persuaded that a careful perusal of his chapter on madness will well repay all who may be called upon to give evidence with respect to the mental condition of persons accused of crime.

In conclusion, I have very much to thank you for, on account of the patient manner in which you have listened to these very imperfect remarks; and it is unnecessary to say that, in offering them, no attempt has been made to do more than to raise a few points which I now ask you to do me the favour of discussing.

* Vol. ii., p. 162, *op. cit.*

*On the Pathology of Certain Cases of Melancholia Attonita or Acute Dementia.** By Joseph Wiglesworth, M.D. Lond., Assistant Medical Officer, Rainhill Asylum. (*With Illustration.*)

Since a knowledge of the Physiology of Mind is essential to a clear comprehension of its Pathology, we may fitly introduce a paper purporting to deal with one form of abnormal mental action, with a few considerations concerning mental action in general.

A nervous system is an apparatus for registering the impressions received from the external world—an apparatus through which the environment acts upon the organism, and is itself re-acted upon by it. In ultimate structure such a system consists of nerve vesicles, and nerve fibres connecting these. The nervous arc, consisting of afferent and efferent fibres, and intervening corpuscle, which subserves reflex action, introduces us to the primitive form of nervous action—shows us the unit out of which the nervous system is built up; by the combination of two or more such nervous arcs, fibres from which meet in a common centre, a nervous system in its simplest form is produced, and it is by the combination and re-combination of an infinite number of such simple nervous systems, that the highest nervous systems are elaborated.

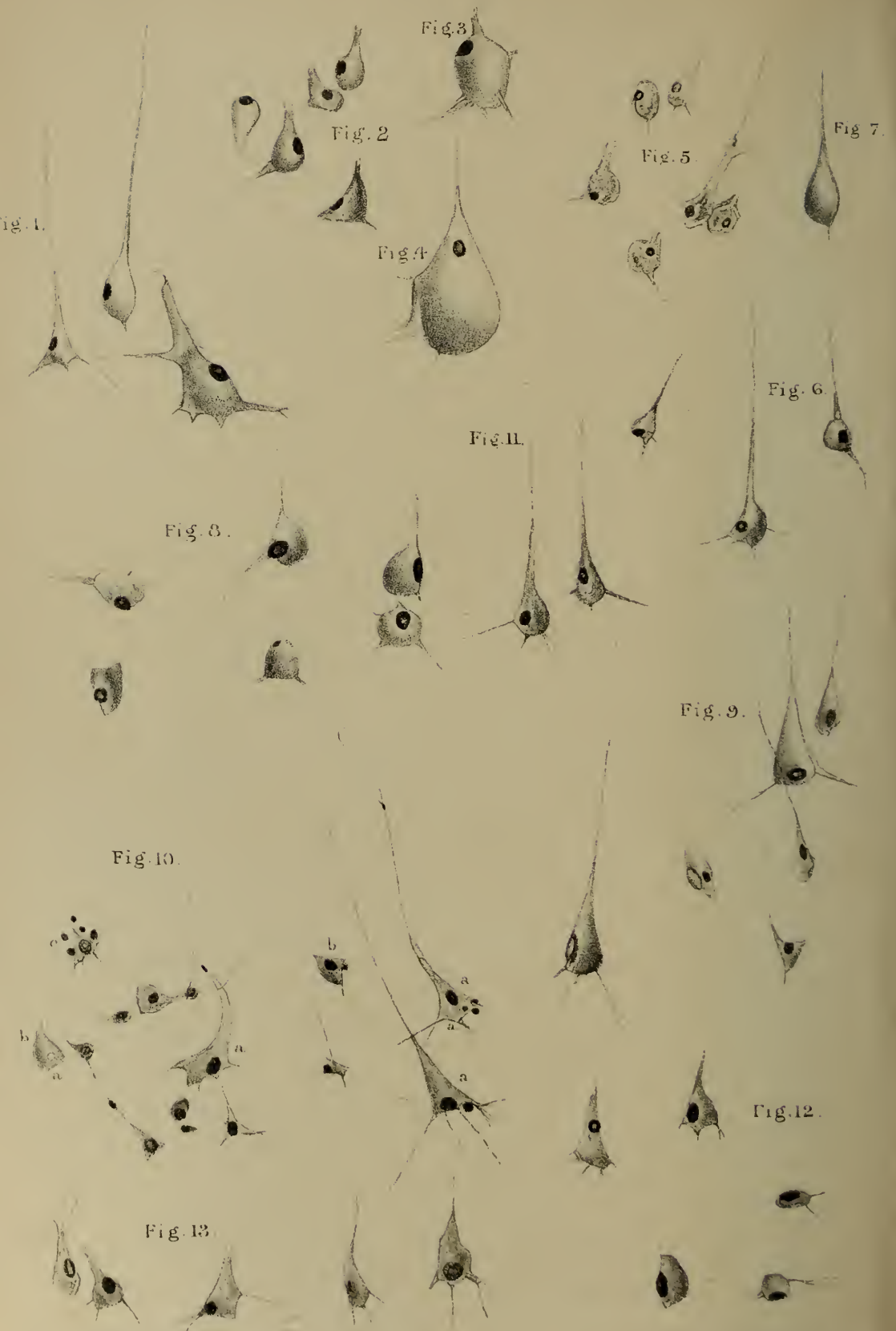
The co-ordination of a number of inferior centres by a superior centre, implies not only that all these inferior centres are there brought into union, but that they are subject to the influence of this higher centre—are controlled or inhibited by it. A number of such superior centres are themselves co-ordinated or controlled by still higher centres, and so on to the latest stages of evolution. We might, therefore, roughly divide nerve vesicles into those which register impressions, and those which co-ordinate the impressions thus registered. This is, of course, but a rough subdivision; during the gradual evolution of the nervous system, registration of impressions, and co-ordination of these have gone hand in hand. Nevertheless, we are justified in assuming that in the highest nervous system hitherto evolved—the human brain—an enormous number of plexuses of cells and fibres, which we may call lower centres, are controlled and co-ordinated by a smaller number of plexuses which we may call higher.

* Essay to which the Prize of the Medico-Psychological Association has been awarded. (See report of the Annual Meeting in this number).—Eds.

Dividing Mind into Feelings, and Relations between Feelings, we see that the former correspond to the physical excitation of nerve vesicles, and the latter to that of the fibres connecting them. The nerve vesicles, therefore, in which impressions have been organically registered, form the raw material of intelligence, and it is by the combination and recombination of these in an infinite number of ways, that all manifestations of intelligence result.

What is called a knowledge of any object, however small, is a synthesis of a number of impressions—is a synthesis of physical changes in a group (large or small) of nerve vesicles, and of the fibres connecting these. For the object to be recognized as a whole, all these impressions must be brought to one centre—must be co-ordinated in one centre. Such centres of co-ordination are themselves combined and re-combined in endless variety. The final groups of vesicles, through which all the original groups are brought into relation, are the highest centres—the "highest co-ordinating centres," and are of course the latest developed.

Arrest of the function of these highest centres permits the lower centres to act without restraint, and excess of action, coupled with incoherence of action, is the result, as we see in mania. The due performance of the function of the highest co-ordinating centres is essential to consciousness in its highest form, and in proportion as the function of these is abrogated, the individual is dethroned from a higher to a lower phase of consciousness. It may well be doubted whether a patient, the subject of a severe attack of mania, has ideas in the strict sense of the term. The so-called random ideas, of which his incoherent talk is the expression, are merely due to the uncontrolled action of certain lower nervous plexuses, which, not being brought to one centre, cannot by their action form part of one consciousness. But if, in place of a disease which attacks primarily the highest co-ordinating centres, we have one which affects the nerve vesicles constituting the lower plexuses—those which have directly received the impressions stamped on them by the external world, and which thus form the raw material of intelligence—the result would be different; for whatever might be the ideas excited by irritative action going on in these centres, they would be capable of being to a greater or less extent co-ordinated in a common centre, and of thus forming part of one consciousness; that is, the individual would be conscious of the ideas excited, however incoherent they might be.



J. Wiglesworth, del. R. Mintern, lith. Mintern Bros. imp

TO ILLUSTRATE DR WIGLESWORTH'S ESSAY

What would be the result of an irritative action, say of an inflammatory kind, going on in these vesicles? Whatever might be the special function of any individual cell attacked, it probably would be speedily annulled, for inflammatory action in a nerve cell could not long continue without seriously damaging the delicate protoplasmic substance of which it is composed; but though quoad its own direct function, *i.e.*, as regards the representation of an impression formerly registered in it, it might be practically obsolete, it would still; however, functionate indirectly, by calling into activity the numberless nerve vesicles with which it is in organic connection, for as long as any inflammatory action was proceeding in it, so long would it act as a permanent source of irritation, and be perpetually drafting stimuli along the plexuses with which it was in connection, thus calling into activity the impressions with which it had been associated in experience. But since for the harmonious working of a whole, the integrity of every part is necessary, and since, according to the hypothesis, the injured cell forms part of a whole, the impressions thus re-presented lacking some element which existed on their original presentation, will give rise to ideas which are more or less incoherent—more or less, according to the greater or less number of vesicles, the direct functions of which are in abeyance. But the highest co-ordinating centres not being involved, the ideas thus aroused are capable of being brought to one centre—of forming a consciousness.

I have now to describe two cases, in each of which a definite assemblage of clinical symptoms was associated with a definite microscopical lesion discovered in the brain after death. An attempt will then be made to explain the former by the latter, and to draw some conclusions.

Case I.—Elizabeth G., was 48 years of age when she was admitted into an asylum. Her family history disclosed no evidence of insanity, epilepsy, or phthisis. Her parents were said to have been temperate, but two of her sisters were stated to have been very intemperate—were described, indeed, as having drunk themselves to death. Patient had been married upwards of 25 years, but had been separated from her husband for about 12 years. Since that time she had kept a lodging house, and had lived with one of her male lodgers as his wife. During the last few years she had been gradually getting intemperate, and had drunk a good deal during the last year or two, chiefly gin, it was said. Some eight months previous to admission she got a fancy that the man with whom she cohabited had designs on her life, and two months subsequently, when staying with a friend, she thought

people were going to poison her. It did not appear, however, that her friends considered her mind affected at that time, and it was only about a week before admission that distinct evidence of mental alienation was observed. She then took to her bed, and could scarcely be got to speak at all.

On admission she was noted to be a woman of short stature, but otherwise fairly well developed; she was fairly nourished, but appeared to have lost flesh; her height was 4ft. 11½in., and her weight (taken a fortnight after admission) was 98lbs. Complexion muddy, and capillaries of cheeks dilated; hair brown and matted, full of pediculi. Temp., 99·2; pulse, 92, weak; respirations, 24. There was no evidence of visceral disease. The urine was normal.

She appeared very feeble, and could not be got to walk, but had to be carried into the ward. She had a stolid expression, and was perfectly silent—could not be got to answer a single question.

1st week.—On the following day she had the same stolid expression, and preserved the same obstinate silence. She took no notice of any question put; sometimes, indeed, she stared at questioner, but at others, even when spoken to loudly, did not even turn her eyes, nor could she be got to protrude her tongue. She resisted all attempts at the administration of food, and took very little. She remained much in the same condition for about a week, but was a trifle brighter, for she occasionally answered simple questions shortly, and in a whisper; more often, however, she was obstinately silent. She had to be dressed and fed, but took a fair amount of food with pressing. She sat very quiet, taking very little notice of surrounding things, though she at times looked about her a little. Appeared shaky when walking. Slept on the whole fairly well, but was wakeful at times. Tongue moist. Slightly furred. Bowels confined.

2nd week.—During the following week she still continued dull, though was on the whole a little brighter; though keeping very taciturn she answered questions somewhat more readily, and on one occasion stated correctly one or two incidents in her past life. Her mind, however, was clearly much confused. She took food pretty well, and fed herself. Bowels still confined; breath offensive, and tongue furred. Right pupil slightly contracted, left normal size; both regular, and acted to light. Kept decidedly feeble.

3rd week.—During the third week she still continued to get a little brighter, and once or twice did some needlework. She kept, however, very feeble; hands trembled on movement, and she on one occasion fell down; tongue could only be protruded for a very short distance, and was distinctly tremulous. She was a little restless, at times wandering about. There was still difficulty in getting her to answer questions, and she rarely spoke spontaneously. She appeared, however, to have some confused idea as to where she was, and on one occasion asked for her bill, saying she wished to settle it. Was somewhat wakeful at night. Took food better.

4th week.—Towards the end of the fourth week, she was one evening restless and excited. She spoke to medical officer in a rapid nervous way, appearing to have vague, incoherent thoughts, to which she could only inadequately give expression. She continued restless during that night, and on the following morning rolled on the floor, pulling at the carpets and screaming. She said she was sad at heart —that nobody cared for her—and putting her hand to the top of her head, said she had a child there.

5th week.—She continued somewhat more restless during the fifth week, and was again on one occasion observed to roll on the floor, and to endeavour to wrap the carpet round her head. She continued feeble, and there was still tremor of hands when moved, and of tongue when protruded.

6th week.—During the sixth week her condition varied, she being at times very dull, scarcely speaking at all, and at others talking a little in a rapid nervous way.

7th week.—At the beginning of the seventh week an attack of diarrhœa came on, which confined her to bed, and she rapidly became more feeble. There were occasional twitchings of tendons. Temp. varied from 98° to 101·2°. Breath exhaled a peculiar sickening odour. Examination of thorax showed respiratory sounds to be normal, with the exception of being a little harsh anteriorly, there was no dulness anywhere. She became very morose, and could scarcely be got to say a single word.

8th week.—At the beginning of the eighth week she lay on her back low down in bed ; arms rigid ; tendons twitching a little. The diarrhœa had been arrested. She took no notice of her friends who visited her. From this time to her death, which took place three days later, she exhibited much the same symptoms ; she lay very quiet with a fixed expression, taking no notice of surrounding things, and could not be got to speak. *Arms kept very rigid*; occasional slight jerkings of tendons.

Temp. was normal.

She died on the 52nd day after her admission into the Asylum.

Autopsy (24 hours after death).

Cranium.—Calvaria somewhat thin ; dura mater not abnormally adherent, somewhat flaccid over each frontal lobe ; about an ounce of fluid in subdural space (arachnoid cavity) ; arachnoid and pia-mater not appreciably thickened, strip readily. Distinct wasting of frontal lobes, and wasting, to a less extent, of parietal ; the widening of the sulci being in some places greater than others, gave something of the appearance of cysts ; this was the case in both præ-central sulci; posterior part of left third frontal gyrus distinctly wasted. Occipital and tempero-sphenoidal lobes appeared perfectly healthy. Cortex somewhat dark, but not markedly wasted. Brain generally very soft and wet. Ganglia at base especially soft. Ventricles slightly dilated, containing excess of clear fluid. A few atheromatous patches on vessels at base of brain.

Weight of different portions of brain.

Right Hemisphere	563·5 grammes	Stripped of membranes.
Left „	565 „	
Cerebellum	133·8 „	
Pons	12·5 „	
Medulla Oblongata	5·1 „	
	1279·9	

	Right.	Left.
Frontal Lobe	98·2 grammes	104·7 grammes
Parietal Lobe	305 „	302 „
Temp. Sphen. Lobe	114·5 „	114·8 „
Occipital Lobe	45 „	43·5 „
	562·7	565

(The posterior boundary of the frontal lobe here taken, was the ascending limb of the Sylvian fissure.)

Thorax.—Costal cartilages partially ossified.

Diaphragm reaches to fifth rib on right side, to fifth space on left.

Pleuræ empty. A few old adhesions easily broken down at posterior and upper part of each.

Lungs.—Right, 16ozs.; left, 14ozs. Somewhat emphysematous. Both lower lobes congested.

Pericardium.—External layer of parietal pericardium thickened, and adherent to each lung by two or three fibrous bands; visceral pericardium healthy.

Heart, 8ozs. A little black fluid blood in auricles. Mitral valve a little thickened and contracted, with a few atheromatous patches on anterior flap. Aortic valves a little thickened, and several atheromatous patches encircling lower portion of aorta. Muscular substance of left ventricle showed numerous pale streaks.

Abdomen.—*Liver,* 37½ozs. Right lobe extends two inches below ribs, is marked by a broad tranverse depression, and connected with right lateral region of abdomen by a few fibrous bands. On section pale, fatty, patches irregularly distributed. Gall bladder adherent to tissue around right supra-renal capsule.

Spleen normal. *Pancreas* normal.

Kidneys each weighed 4½ozs.; hyperæmic; capsules a little adherent; cortices a little diminished and somewhat mottled in parts. A few small cysts.

Supra-renal Capsules.—Left enlarged to three times its natural size, and destroyed for the greater portion of its extent by fibroid overgrowth, studded with caseous and calcareous nodules; at left lower corner, proper substance of capsule remained nearly intact. Right very slightly, if at all enlarged, and fairly healthy, but showed here and there caseous nodules the size of a pin's head.

Fatty tissue round each capsule much condensed, and appeared at first incorporated with the capsule, requiring careful dissection off.

Semi-lunar ganglia appeared free and healthy.

Stomach.—Mucous membrane somewhat injected.

Intestines appeared healthy (not opened).

Uterus.—Very small; weighed one ounce. Somewhat unsymmetrically developed towards right side.

Ovaries.—Right small and puckered; left contained a cyst size of pea, enclosing glairy fluid.

Microscopical examination of Brain.—Sections were obtained from the brain in the fresh condition, on the ether-freezing microtome, treated with osmic acid, and stained with aniline blue-black; they were taken from the following gyri:—

Posterior Central Gyrus (Upper part. Left Hem.).—Great swelling of nerve cells, in some cases producing almost complete sphericity of outline; eccentricity of nucleus; comparative scarcity of yellow pigment, this, however, distinct in some cells. The contents of many of the larger cells have, independently of pigmentation, or at times associated with it, a coarse granular appearance; at other times the cell is smoothly and uniformly stained with the aniline, the nucleus being, however, in almost all cases distinct. These changes best marked in the large cells of the fourth layer, but are well marked in third, and distinct in many of the larger cells of the second layer. Slight pigmentation also occurs in some of the larger cells of the second, and smaller cells of the third layer, without any distinct swelling or nuclear displacement being apparent. Some of the spindle cells also appear a little swollen, and some are distinctly, thoughly slightly pigmented. Occasional little patches of bright yellow pigment occur which cannot be distinctly connected with anything.

Posterior part of Third Frontal Gyrus (Left Hem.).—Second and third layers: pigmentation very common, in some fields scarcely a cell being altogether free from it. Occasional patches of yellow pigment not obviously connected with anything; greater or less displacement of nucleus common; in some cells distinct tendency to sphericity of outline; this quite clear and distinct in a minority of cases, more especially of the larger cells, and probably occurs to a slight extent in the majority. Swelling probably somewhat more marked, and pigmentation less marked in the larger cells of the fourth layer. A few of the spindle cells show slight swelling and pigmentation, but the majority appear quite normal. Many of the nuclei have a white dot in the centre.

Tip of First Frontal Gyrus (Left Hem.).—Similar conditions to those above described, but less marked. Some cells quite typical. Pigmentation very marked in some parts of the section.

Tip of Tempero-Sphenoidal Lobe (Right Hem.).—Many of the cells present previously described characters typically, but the majority, probably, were not so affected. Comparative scarcity of pigment.

Tip of Occipital Lobe (Left Hem.).—Some of the larger cells of the deeper layers distinctly swollen with displacement of nucleus.

In all the above sections the neuroglia appeared normal.

Note.—The type of lamination followed in the above descriptions has been the five laminated, which comprises an outer (1st) non-nervous layer, a 2nd layer of small pyramidal cells, a 3rd of large pyramids, a 4th of small angular cells, which contains nests of giant pyramidal cells in some parts, and a 5th (deepest) of spindle cells.

It must be admitted that there were certain features in this case which gave it a little resemblance to one of general paralysis; the muscular feebleness and tremors especially called this to mind, as also the slight inequality of the pupils, though these acted well to light. The mode of death might perhaps be said to favour this view, but, in emphasising these points, the marks of resemblance to this disease are exhausted. It was contradicted by every other clinical feature, and during the patient's life was, after due consideration, decidedly rejected. The pathological evidence was altogether opposed to it, and, therefore, while considering it advisable to call attention to the above points of likeness to general paralysis, I think a possible view of the case, which might include it under this heading, cannot be entertained.

On admission this patient presented the appearance of a typical case of melancholia attonita; deep mental stupor was the predominating feature then, as it formed a striking element in the closing scene. During the middle period of the case the mental characters varied somewhat, but throughout a greater or lesser degree of self absorption was dominant; there always appeared more or less of this. Combined with this mental picture, we have noteworthy physical characteristics, muscular weakness, muscular tremors, and (for a few days before death) muscular rigidity. The case, indeed, appeared to run a definite clinical course, the cause of death appearing a mystery which was not elucidated by a naked eye sectio cadaveris; though the patient's tissues generally were not in a perfectly healthy condition; the only organ distinctly diseased was the left supra-renal capsule, but it is well known that one capsule may be destroyed and produce no recognisable symptoms, nor in this case were there any clinical signs of affections of these organs (there was no bronzing of the skin). I do not myself think that this lesion had anything to do with the patient's death; at best it could but have been considered accessory.

It has been said that no naked-eye lesions were discovered which could account for death. It has now to be admitted

that this point has not been completely elucidated by microscopical examination; nevertheless the demonstration of what must in all probability be regarded as inflammatory swelling of the nerve cells of the cortex cerebri is a fact of much importance. The difficulty is not in supposing that inflammation of nerve cells may cause death, but the association of death with affections of nerve cells in parts not ordinarily considered vital. It must, however, be remembered that the limits of the morbid process were not accurately defined, nor was it possible to do this, for no one individual can make even an approach to a complete examination of a brain in a fresh condition, and for the appreciation of delicate lesions in nerve cells it is imperative that the brain should be examined whilst fresh. It is possible that a lesion similar to that above described had spread beyond the cortex, and had involved nerve cells in the basal ganglia or medulla oblongata, but, independently of this suggestion, we are by no means in a position to affirm that inflammatory changes in nerve cells of the cortex cerebri are not alone sufficient to account for death.

The concurrence of a distinct affection of the muscular system—tremors, rigidity, &c., with a demonstrated lesion in nerve cells of the cortex cerebri, in parts now ordinarily considered as subserving a motor function, is a fact of much significance. The cells here more particularly referred to are the nests of giant cells of the 4th layer of the cortex, found mainly in the anterior and posterior, central gyri, paracentral lobule, and posterior part of the three frontal gyri; but cells identical with these in position and grouping are found in many—probably most—other regions of the cortex, and, though not equalling the former in size, not improbably subserve a substantially similar function. For considering the first named cells to be motor, we have the analogy between size of cell and motor functions, which is suggested by the now clearly demonstrated fact of association of motor functions with the large cells of the anterior cornua of the spinal cord; but the fact more particularly to be relied upon is the demonstration by Hitzig and Ferrier, of the connection between electric excitation of certain definite areæ of the cerebral cortex and sequent muscular movements of a well-defined character, the giant cells in question being proved to correspond in distribution with this excitable area. It must be noted, however, that though the morbid process in the case described was best marked in the above cells, it was by no means confined to these.

In talking of motor cells, and motor centres, stimulation of

which produces definite movements, the tendency in some quarters seems to be to regard such motor centres as something apart from—outside of—mind; that is, to look upon mind as an entity, which in acting upon the external world acts through these motor centres—uses them in the production of movements. Nevertheless such a conception is opposed to fundamental views of the structure of the nervous system; we cannot talk of mind *and* motor centres any more than we can talk of mind *and* sensory centres; the two are mutually inclusive. What we know as mind is made up of these motor and sensory centres, that is of the functional activities of these; from the simplest reflex act up to the highest generalization of science, the nervous system sensori-motor at the beginning, is sensori-motor to the end. This view, elaborated in the works of Herbert Spencer, has been ably advocated for many years by Dr. Hughlings Jackson; nevertheless it is doubtful whether it yet receives by any means universal recognition; a full appreciation of it is, however, necessary to a clear conception of the complicated phenomena of mind.

The application here to be made is, that inflammatory irritation of nerve cells, considered motor, will produce not merely affections of those muscles, with which their action is ordinarily associated, but also distinct mental manifestations, not yet specifically recognizable, which are nevertheless necessarily to be inferred.

Case II.—Eliza R. was 30 years of age when she was admitted into an asylum; she was a married woman living with her husband. Her family history was unimportant, her father was said to have died at 50 of a "stroke," but no evidence was forthcoming of insanity, epilepsy, or phthisis; her mother, who gave these particulars, appeared to be of a decidedly emotional temperament. Patient's personal history was to the effect that she had been married ten years, but had had no children, nor any miscarriages; she herself was the only child in the family, and had always been delicate; for some months previous to admission she had been under treatment for uterine disease; her condition of ill-health seemed to prey upon her husband's mind, who, a week before her admission, attempted to commit suicide by jumping into the river; this escapade of her husband's was a great shock to her, and she almost immediately showed signs of insanity. It was impossible to obtain from the mother a coherent account of the symptoms patient then presented, but she was said to have been excited for two days; previous to this she had never shown any signs of insanity.

On admission, she was noted to be a woman somewhat below medium height, of spare habit, but fairly nourished, features thin, brown hair, grey irides, pupils 4 mm., equal, regular, appeared to act

to light, but it was difficult to examine them properly; teeth much decayed, tongue protruded straight, but rapidly withdrawn, dry and somewhat brown; lips and teeth dry. Temp., 99·2°, pulse 108.

Lungs, normal. *Heart*, normal. *Urine*, clear, amber-coloured, acid; sp. gr., 1032; no albumen, no sugar.

She was restless and out of bed most of night, the first night after admission, and the following day was reported to have appeared in a greater or less condition of panic since her admission, clutching hold of everybody who came near her, and muttering at times disjointed words, such as "judgment," in a hurried, nervous way. She could not on this morning be got to answer a single question, but the evening previous had given one or two rational replies to simple questions —thus, gave her name correctly, her age as 20 (really 30); stated that she had been married 8 years (really 10), and had had no children (correct). She now had a nervous, frightened manner. Her arms and the upper part of her body trembled at times, and she at times moved her right arm rapidly to and fro, with what appeared to be voluntary movements.

The following night, being put to sleep in a single room, she was out of bed all night, and at 4 a.m. was reported as screaming, and knocking at the shutter and door of her room. Her bowels were moved during the night, and her bed was soiled. On the morning of the next day she was in much the same condition as above described, but in the afternoon went to sleep, and slept almost continuously until the following morning; on this (4th) morning she was sitting up in bed with a wild, somewhat absent expression. She was very quiet, but could not be got to answer a single question. She was got up, and for the next three days continued restless and wakeful during the night, and during the day wandered about in a lost sort of way, but could not be got to speak. Right arm was frequently agitated with tremor. On the morning of the 8th day she was still restless, standing with one arm behind her back, and the other crossed in front of her abdomen; fingers of each hand bent into palm, right arm not unfrequently agitated with more or less rhythmical jerks, which appeared to be under the control of the will; her expression was absent, though she looked about her. She wandered at times about the room, but did not speak; the only question she could be got to answer was to say "yes," when asked if she was better. Was taking food well.

Bowels rather confined.

She continued quiet, scarcely speaking at all, but occasionally muttering a few unintelligible words. Expression continued absent. She was on one occasion detected eating her fæces. On the morning of the 14th day, appearing more feeble, she was kept in bed. She lay quiet, mouth half open, eyes moving about restlessly, expression distinctly blank, though she appeared to regard surrounding objects; occasional slight twitchings of upper lip observed, arms trembled on movement, and there was also very slight quivering of muscles of

left side of arm and hand, when arm was apparently at rest. *Arms were kept rigid when attempts were made to move them.* Temp., 102·2°. Pulse, 116, pretty full and regular. Respirations, 24. *Reflexes*, plantar very active; abdominal very slightly marked. Knee-jerk very active. An opthalmoscopic examination showed both discs to be very red, but the edges were perfectly clear and defined. Could not be got to protrude tongue, and the only word she could be got to say was "better," in reply to a question as to how she was, and this answer was only elicited after the question had been frequently repeated. She had to be fed, and kept food a long time in mouth before swallowing it, but took a fair amount of it. She slept well the next night, and on the following day (15th day) temp. was 99·8°; pulse, 124. She still lay quiet in bed, with her mouth half open, but there was no escape of saliva; she screamed when moved; she did not speak spontaneously, nor could she be got to take any notice of questions, neither would she protrude tongue when told. She continued much the same for the next two or three days, but appeared getting gradually weaker. Temp. varied from 97·2° to 99·2°; pulse from 120 to 128. On the 18th day she was lying very quiet, taking no notice of anything; could not be got to speak at all. Muscles of extremities were rigid when attempts were made to move them. An examination of thorax showed general slight hyper-resonance, and expiration was somewhat abnormally distinct; these signs, of course, pointed to some slight pulmonary emphysema, but beyond this no evidence was forthcoming of any visceral disease, either thoracic or abdominal. On the morning of the 19th day some swelling and induration of both parotid regions was observed, and patient was obviously sinking; she died on that day, at 9.50 p.m.

Autopsy (13 hours after death).

Cranium.—Calvaria normal. Dura mater somewhat too adherent, bags in frontal region; about two ounces of fluid in subdural space; arachnoid not opaque; it and pia-mater not thickened; pia-mater strips fairly readily—no adhesions; sub-pia-matral tissue œdematous; considerable wasting of gyri over convexity, with corresponding excess of sub-arachnoid fluid; this wasting as well marked posteriorly as anteriorly; surface of cortex pale, becoming slightly pink on exposure to the air; brain generally rather pale, wet, and slightly soft. Cortex of normal depth—pale grey; striæ generally indistinct, but fairly well marked in occipital regions. About half an ounce of fluid in ventricles; basal ganglia normal; cerebellum normal; pons and medulla normal; basal vessels healthy.

Weight of brain immediately after removal, 1,365 grammes.

Right hemisphere	582 grammes.		
Left „	578	„	(stripped = 558)
Cerebellum	158	„	
Pons	12	„	
Medulla oblongata	7·5	„	
	1337·5		

Thorax.—Diaphragm reaches to 4th rib on right side, to 4th space on left.

Pleuræ empty ; no adhesions.

Lungs.—Right, 13ozs. Left, 11¼ozs. Upper lobes emphysematous ; lower moderately hyperæmic, fully crepitant.

Pericardium empty.

Heart, 6½ozs. Small amount of subpericardial fat. A little partially discoloured clot in right cavities. Valves competent and healthy. Muscle a little soft, but apparently healthy.

Abdomen.—*Liver*, 33ozs. A little pale.

Spleen, 1¾oz. Normal.

Kidneys, right, 3¾ozs. ; left, 4¼ozs.

Capsules strip readily. Structure apparently normal.

Pancreas, normal. *Adrenals*, normal.

Uterus, 2ozs. Fundus a little large ; lips of os somewhat hyperæmic ; cervix contains a slight amount of glairy fluid.

Ovaries, left contained a recent corpus luteum. Right appeared abnormally tough, as if containing an excess of fibrous tissue, chiefly in centre.

Microscopical Examination of Brain.—Sections were prepared, as in the former case, from the fresh brain ; they were taken from the following parts. (Right hemisphere) :—

Tip of Middle Frontal Gyrus.—Of the larger cells of the 3rd layer, the majority presented eccentricity of the nucleus ; 18 cells showing this character were readily counted in one field (¼ inch), most of them also showed slight swelling—slight tendency to sphericity, one or two showed small whitish spots in centre of nucleus ; scarcely any showed nucleus absolutely central ; a few cells showed slight yellow pigmentation ; the above-mentioned points were most marked in many of the larger cells of the 4th layer ; some, however, appeared quite normal. At one spot two large cells were observed close together ; one presented distinct swelling and distinct eccentricity of nucleus ; in the other the outline was sharp and angular, but the nucleus was not exactly central, and had a white dot in the centre. Free nuclei very distinct about many of the cells (? nuclei of lymphatic sheath). In the spindle-celled layer the nucleus appeared slightly eccentric in some cells, and in others the nucleus seemed large, almost filling the cell, but the majority looked normal or almost so.

Tip of Anterior Central Gyrus.—Many of the larger cells of the 2nd layer showed distinct tendency to sphericity, with eccentricity of nucleus ; a few were pigmented ; these characters got more distinct in passing from the 2nd to the 3rd layer, and in many of the large cells of the 4th layer, the swelling and eccentricity of nucleus were exceedingly clear, but slightly or doubtfully visible in the layer of spindle cells.

Angular Gyrus.—Same conditions, but less marked ; a considerably larger number of the larger cells, as compared with those from preceding sections, appeared normal ; many of them, however, showed

very distinctly the tendency to sphericity of outline, with eccentricity of nucleus.

Third Temporo-sphenoidal Gyrus.—Same conditions, but probably less marked than in preceding sections—quite distinct, however, in some cells.

Tip of Occipital Lobe.—A few of the cells appeared to present the above described characters in a slight degree.

In all the sections the neuroglia appeared normal.

The exact position of this case in psychological nomenclature, might perhaps be considered to admit of some question; nevertheless it can hardly be doubted that it would have been included by all, or nearly all, under the class of mental affections, which form the heading of this paper. There was, indeed, an early stage of excitement in the case, but the symptoms soon passed into those of self-absorption and vacuity. The case indeed was regarded by a thoroughly competent authority (the superintendent of the asylum in which the patient was confined) as one of acute dementia.

We have in this case, as in the last, an affection running a perfectly definite clinical course, and ending fatally, without any objective signs of disease being observed during life to account for the termination, nor indeed did a naked eye examination of the body after death throw much light on the case. A microscopical examination of the brain, however, showed lesions similar to those of the case first recorded, though they did not appear to have advanced to quite the same extent.

These lesions have already been described as inflation of nerve cells, with displacement of nucleus. As regards the inflation, when it has progressed to the extent here recorded, it cannot but be regarded as distinctly pathological, though we must not shut our eyes to the probability that some degree of distension of nerve cells may occur under conditions physiological, or but slightly removed from these; the very marked displacement of the nucleus, moreover—pushed in some cases up to the apex, or to one corner of the cell—appears indicative of a decidedly abnormal process.

The changes are probably analogous to those described by Charcot, as occurring in the large nerve-cells of the anterior cornua of the spinal cord in so-called "infantile paralysis."

As regards the pigmentation, this is such a common lesion in all forms of insanity (and moreover appears to occur to a slight extent as a physiological condition) that no special notice of it is requisite.

On comparing these two cases together, we find, in spite of

some differences, some striking points of contact. They were both recent cases of insanity, running a definite course to death which could not be accounted for by any symptoms observed during life, nor by a sectio cadaveris conducted in the ordinary manner; it is important to observe that there was no maniacal excitement which might have permitted of death being attributed to exhaustion. But there was a definite association of a mental condition, broadly characterized by more or less self-absorption passing into vacuity, with a distinct affection of the muscular system—in the first instance, tremors—in the second, rigidity. Let me emphasise the fact that there was well-marked rigidity of the arms for a few days before death, for this is not a sign very commonly observed at the termination of a case of insanity.

In each case, though muscular quiescence predominated, there were intercalated periods, more or less transitory, of muscular activity; in the second case there appeared to have been a stage of excitement prior to admission, and after admission there were periods, more especially at night, in which the patient was restless; whilst in the first case it will have been noted that the patient, during the middle period of the case, was at times restless, wandering about and rolling on the floor; but in neither case was the restlessness at all comparable to that of a maniacal patient, and there was none of the loquacity observed here; the restlessness had an aimless random character, such as might be supposed would result from diffused, moderate excitation of the nervous centres governing muscular movements in general. Finally, it has to be noted that similar microscopical lesions were discovered in the cerebral cortex. In estimating the significance of these changes, it must be remembered that affections of nerve cells clearly identical with those here observed, have been previously described under the names of "inflation," "hypertrophy," &c.; they have, I believe, been chiefly noted in cases of general paralysis and epileptic idiocy; in the former case the lesion is probably secondary to overgrowth of interstitial connective tissue, and in the latter it must be looked upon more as a congenital malformation than as an acquired affection; but I am not aware of any cases of recent insanity in which this change has been the sole or the chief morbid lesion found after death; nor am I acquainted with any attempts to correlate this change with a definite assemblage of clinical symptoms. But though, as above-mentioned, this lesion of nerve cells has been described as an isolated phenomenon, and though I have myself met with it occasionally in

cases of general paralysis, it has not in my experience been a lesion by any means commonly met with; putting aside general paralysis, out of a series of 32 cases of acute and chronic insanity (other than those here recorded) of which I have sections prepared from brain in the fresh condition, I do not think that I have been able satisfactorily to demonstrate its presence once.

And now calling to mind the few considerations with regard to nerve function with which this thesis set out, we may endeavour to harmonise the facts observed clinically, with those afforded by pathological investigation.

An initial inflammatory affection of nerve cells would account for the preliminary stage of excitement in the second case, whilst its absence in the first (if it were altogether absent—for the history was imperfect) might be associated with a slower onset of the malady; the occasional restlessness subsequently noted in each case might be attributed to a spread of the morbid process, fresh series of cells becoming involved, and by their discharge giving off a transitory energy. But it was concluded that inflammatory affection of a nerve cell would quickly suspend its own proper function, whilst still permitting it to act as a source of irritation, and of thus calling into action the plexuses with which it had been previously functionally associated; and if such inflammatory action is proceeding in a multitude of nerve cells, a multitude of plexuses must be simultaneously called into activity, and the manifestations of their activity will be more or less enduring; that is to say, in the mind of an individual thus affected (to use ordinary language) a multitude of vague and incoherent thoughts will be aroused over which he will have no control; the ego indeed for the time being will consist of this mass of ill-defined reminiscences; but in proportion to the activity of this process, will the individual be absorbed in the contemplation of his thoughts, and will be, in proportionate degree, insensible to external stimuli: in one word, the individual will be self-absorbed, which condition we found to be the prominent clinical feature in each case.

But it is manifest that, according as a larger number of nerve cells become functionless, quoad their own proper function, there will be a smaller proportion of cells capable, by being indirectly excited, of arousing mental action; but to say that an individual has a large number of his nerve cells rendered functionless is to say that the individual is demented, just in proportion to the number of cells involved; and since, by the hypothesis, the lesion here spoken of is a progressive one, the

symptoms of self-absorption will pass into those of dementia by imperceptible degrees, which was just what we found to be clinically the case.

The correlation between a lesion of motor nerve cells and a definite affection of the muscular system, has been already dwelt upon.

From the foregoing considerations, the following conclusions emerge:—

(1.) That from the ill-defined assemblage of cases commonly called "Melancholia," "Melancholia Attonita," and "Acute Dementia," a group has to be distinguished which constitutes a definite clinical and pathological entity.

(2.) That this group is clinically characterised by the association of more or less of self-absorption passing into vacuity, with a definite affection of the muscular system, to wit, muscular tremors and muscular rigidity.

(3.) That the pathological basis of the same is a primary inflammatory affection of nerve cells, best marked in the so-called "motor cells," and possibly originating in these, but showing a decided tendency to spread beyond their area.

In saying that from the above class of cases this group has to be eliminated, it is also said that this group is not coequal with the series; but, to prevent any misunderstanding, I must express my opinion that, under these names are confounded mental affections, the pathology of which is altogether distinct, and the present is merely an attempt to define the pathology of one group of these. The limits of this group require, indeed, much more working out before they can be considered to be accurately defined. Since the two cases which form the groundwork of this paper terminated fatally, they must be looked upon as cases of unusual severity, and it is probable that many cases which own a similar pathology, but of a milder character, occur, and are recovered from, or maybe lapse into dementia, and have thus far escaped specific recognition.

Some such cases have, I think, come under my notice, but in the absence of pathological details, I have not thought it advisable to encumber this thesis with an account of them.

Whilst formulating the conclusions reached in the above specific way, this is done to put clearly forward the issue raised, for I am fully sensible that, as the matter at present stands, the induction is based upon too small a number of cases to be admitted without further question; more observations are urgently needed, but cases of this kind terminating fatally are not very numerous, and may not occur very plentifully in the experience

of any one individual; I am therefore tempted to hazard these observations sooner than I might otherwise have been disposed to do, in the hope that the attention of others being directed to the question, opportunities may be afforded for deciding the matter, which can only be done by the joint action of several independent workers in the field of cerebral pathology.

DESCRIPTION OF THE PLATE.

Case I.

Drawings of Cells from the Posterior Central Gyrus (× about 350.)

1. *Deep part of the 3rd layer.*
2. *4th layer.*
3 and 4. *Large (motor) cells from the 4th layer.*

All these cells show swelling with eccentricity of the nucleus, and these characters are very well marked in the lower two figures. There is almost entire absence of yellow pigmentation.

Drawings of Cells from Posterior Part of 3rd Frontal Gyrus (× about 350).

5. *3rd layer.*
6. *4th layer.*

All these cells show more or less swelling and eccentricity of the nucleus; there is a little yellow pigmentation in several of them.

Tip of Temporo-Sphenoidal Gyrus.

7. *General swelling, without pigmentation; no appearance of nucleus.*

Case II.

Drawings of Cells from Tip of Anterior Central Gyrus (× about 350).

8. *4th layer.*

Marked swelling and displacement of nucleus.

Nerve Cells from Middle Frontal Gyrus (× 350.)

9. *Deep part of 4th layer; moderate inflation with displacement of nucleus. In one cell slight yellowish pigmentation.*
10. *4th layer.* (a) *Displacement of nucleus;* (b) *the same, with swelling;* (c) *Nuclei around nerve cell.*

Nerve Cells from Angular Gyrus (× 350.)

11. *3rd layer. Moderate inflation, with displacement of nucleus: slight yellow pigmentation.*
12. *4th layer. Moderate inflation, with displacement of nucleus.*

Nerve Cells from 3rd Temporo-Sphenoidal Gyrus (on Level with Posterior End of Sylvian Fissure) (× 350.)

13. *Deep part of 3rd layer. Moderate swelling; marked displacement of nucleus; slight yellow pigmentation.*

Remarks on some Minor Matters of Management in Asylums.
By J. A. Campbell, M.D., F.R.S.E.

At the annual meeting for 1880, one of the Editors of our Journal asked the members present for contributions on the subject of practical details in asylum management, pointed out the value of improvements in such directions, and expressed the opinion that such topics came most properly within the scope of a good asylum physician.

The prospectus of our Journal in 1853 clearly included such subjects, among others, as being suitable for discussion in its pages.

Dr. Urquhart's paper "On the Decoration and Furnishing of Asylums," and Dr. Bower's contribution, "Employment in the Treatment of Mental Diseases in the Upper Classes," were acceptable and worthy responses to the appeal of our Editor.

It cannot be questioned that whatever is essential to the safety, comfort and happiness of those under our charge is well worthy of our attention; that improvements or advances in this direction are to be welcomed. To many patients minor discomforts, which may easily be produced by official neglect or oversight, seem, in their distorted fancy, wrongs of the greatest magnitude, sins of the deepest dye. Slight and inexpensive improvements are capable of being made in most asylums, which would greatly add to the comfort of our charges. Most of us know that patients in certain asylums have not only more of the solid comforts of life, but also more of the amenities than in other asylums where the cost is identical, or almost so, and we are also fully aware that this disparity is the result of special knowledge or aptitude for improvement on the part of the superintendent or one of the higher officials.

Visits to other asylums usually enable one to pick up improved ideas and methods, and I am sure if we could tap the proper fountains many of us would benefit largely.

The large amount of routine inspection, the hundred and one minor worries of medical work and management, not to speak of continual asylum enlargements, are apt to produce a frame of mind unfavourable either to scientific work, or even to marked advance in details of management. A freer absence from the asylum and its cares, a more frequent exchange of opinion on medical and other subjects would be beneficial to the superintendents of most public asylums.

In the remarks that follow, I have no intention of willingly

disparaging what are supposed to be improvements in certain modes of asylum treatment or management. I think a generous rivalry between asylums as to results of the right kind, and an open discussion on the modes adopted to arrive at these results, whether by medical or other treatment, shows a healthy state of matters.

What I would deprecate is a tendency to refrain from exposition of anything which would be useful to us as a profession, if conveyed in the precise and exhaustive manner, in which it should be treated in the pages of our Journal, or in any medical paper, while there exists a tendency to deal in generalities on such subjects in reports. Even lay communications, pitched in highly laudatory terms, occasionally startle us with accounts of marked advances in treatment of the insane.

Details of management have scarcely been sufficiently attended to at Garlands, and I am therefore the more anxious to receive all the information and asylum *tips* that I can on the subject. In a late "Lancet" I noticed that Dr. Clarke, of the Bothwell Asylum, intends to communicate a paper on the subject of asylum attendants. His experience will enable him to treat the subject well. I hope he will touch on the question of uniforms for attendants—is it an advantage or otherwise?

The slight contribution which I submit of some minor matters in use here, I offer not so much on account of their value, as in the hope that, by doing this, I may elicit in return useful hints from many sources. I know that there are not a few among us who have the rare gift of excellence in management, and who, if we could get them to open out, would give us quite a flood of useful knowledge.

So far as I have been able to gather in my intercourse with medical superintendents of experience, knowledge and standing in the profession, a high recovery rate, a low death rate, an immunity from accidents, and an exemption from preventible diseases in the inhabitants of any asylum is what ought to be aimed at, and it might be quite fairly granted, I think, that if these aims are arrived at, with anything like an average expenditure, the management of the asylum must be considered successful in the highest sense.

The general tenor of some of the Scotch asylum reports has latterly almost convinced me that the occupation of patients is a new discovery, that the employment of pauper patients in farm work is only properly carried on in certain portions even of the northern kingdom! However, on second thoughts, and

without going further back, I find that when I became assistant at the Durham Asylum in 1866, a very large proportion of the patients at that asylum were employed on the farm and garden, and the value of industrial occupation was strongly expressed to me by Dr. Smith. When I came to this asylum as assistant to Dr. Clouston, I found that he held the same views. I have, out of curiosity, looked up the Returns of this asylum, and I find that on June 1st, 1867, of 165 male patients 119 were industrially employed (72 per cent.), 47 per cent. of the total worked on the farm and garden. On June 1st, 1883, with a male population of 249, 186 or 74 per cent. were usefully employed; 146 of these were employed on the farm and garden (59 per cent). Taking, at the latter period, the number of patients in bed from physical ailment, the aged, the feeble, and the number of acute recent cases who require special treatment and attendance, and are totally unfit for work, I am convinced that, in the interests of the patients, our percentage of working patients is quite high enough. During the cold months the percentage from the same cause is considerably lower.

I may add that on the last day of June, with a male population of 250, I find 15 between 65 and 70 years of age, eight between 70 and 80, and two between 80 and 90 : in all, ten per cent. of the male patients unfitted by age alone for exposure or work.

As I have already stated, the general impression which must necessarily result from what we have been hearing of late years is that, in building asylums, the acquisition of land for the proper employment of the male patients was not at all considered.

Now I find by inquiry that in the older asylums in the north of England this was not the case. The following shows the truth of the matter, and I may say that in some of these asylums, as additions were built, so the farm was extended, and this before laudation of farm work came so prominently before us in reports :—

Name.	Date of opening.	No. of males built for.	Acres.	
Lancaster County	1816	90	49	Freehold
North Riding, Yorks... ...	1847	75	45	do.
Durham	1858	150	52	do.
Northumberland	1859	100	100	do.
Cumberland and Westmoreland	1862	100	108	do.

I think these facts clearly show that the utility of farm work

in the curative treatment of insanity is not of such extremely modern origin as some might wish us to believe, from the great amount of what is vulgarly but expressively termed *blow*, which for the last few years has been expended on the subject.

I agree that a certain amount of farm connected with an asylum is useful as a curative agent, and profitable from an economic point of view, and that the experience of the older asylums, especially some of the English asylums, bears this well out. I also, however, am certain that a medical superintendent, who still believes in medical treatment, who is active in mind and body, and fertile in resource, who can devise various modes of occupation, exercise, and amusement, not merely throw shoals of patients (some of whom are probably mechanics) on an already overstocked farm, may quite well arrive at higher results in every way than another whose sole panacea for all mental ills is farm work.

I quote the following definite statement regarding the recovery rate from the 1879 report of the Royal Edinburgh Asylum, an asylum where medical treatment is still recognised as useful and is carefully carried out; an asylum which is not worked on the open-door system, which has over 400 male patients, and only 115 acres of ground attached: "Compared with our own recovery rate for the past ten years, it was this year 6 per cent. more. Compared with the Scotch public asylums for the same time, 10½ per cent. more." The following as regards the death rate: "It is about 2 per cent. lower than the average rate of the previous sixteen years. It is ·6 less than the rate in all the Scotch public asylums for the past ten years."

It is said that visionary and unpractical authorities hold the idea that immense farms are the ideal of the asylum treatment of the future. It is well, however, to recollect that one may have too much even of a good thing—that the acquisition of *territory* in connection with an asylum, instead of such a reasonable amount of ground as would profitably absorb the patients' labour, may change humane and kindly directors into keen, grasping and unfeeling speculators, who recognise the risks that they have entered on, and act accordingly. The superintendent must necessarily either sink his profession and assume the farmer, or else separate management, with all the evils of divided authority, and responsibility, must ensue.

The patients by whom the gains are to be made must work fair weather or foul, and will have a tendency to become more like the serfs so recently emancipated even in Russia than

patients sent to a hospital for the treatment of a disease which in most cases is recognised to have a physical origin.

I do not wish to be misunderstood. I quite agree as to the value of having a farm attached to an asylum, but my opinion, founded on my own experience and the deductions I have drawn from what I have seen elsewhere, is that from half an acre to an acre of tillable ground per male patient will sufficiently absorb the labour power, and that a very large farm *may* become a serious disadvantage, cause a deterioration in articles of diet, and interfere both with the health and recovery rate of the patients. I do not think that even the most severe or enthusiastic advocate of farm labour for lunatics, or rather lunatics for farm labour, be he Medical Superintendent or even Commissioner, can altogether get rid of his early medical training.

Shivering shopmen, miserable mealy-faced mechanics and timid tailors, must surely be subjected to some slight hardening process, before anyone that has still a glimmering of medical knowledge left can consign them in winter weather to dig, to drain, or to do such duties as necessarily devolve on farm labourers to the manner born.

I perused with pleasure the 23rd Report of the Scotch Commissioners in Lunacy, especially the portion which refers to recent changes in modes of administering asylums, and think (with the exception of the part which refers to airing-courts, and which may be due to an imperfect knowledge of the practical value of a sheltered and properly laid-out airing-court in the treatment of certain classes of cases) few can take exception to the general tenor of the remarks. It is, of course, written from an Inspector's point of view, but still it is more enthusiastic, and less judicial than one would expect, and it might have been none the worse for some counter-balancing precautionary advices. It is just possible—I do not at all, however, say that it has done so—that such a style of report may tend to make young and inexperienced, or even old and enthusiastic Superintendents too eager for the commendations which aid to promotion. Patients *may have to work*. Freedom at unwarrantable risk, both to patients and their relatives, may be accorded.

A spade, a hoe, or a wheelbarrow is surely not to be the whole sum of the asylum treatment of the future.

There are certain patients who must be isolated for their own safety and that of others, and we know that there still exist patients in asylums, who, if they can, will place their heads on rails, or do other things equally injurious to their health; and

we need not blink the fact that they must be specially guarded. Fatalism is not as yet accepted as an asylum doctrine.

I was much pleased with Dr. Needham's questions as regards the "open-door system," so called; and I read with great interest the replies by Drs. Tuke, Dunlop and Cameron, in the July and October numbers of the Journal for 1882. The subject has been touched upon in official reports on asylums and in the reports of the asylums, and has been generally lauded. I think, as a profession, we should now have the matter in both its aspects, as a curative agent and also as a question of management, brought distinctly before us in a direct communication which would deal with the following points of the asylums in which it is, and has been, in use :—

1st. What is the proportion of epileptic, general paralytic, and actively suicidal in the asylum ?

2nd. The number of escapes per year to the population ?

3rd. The number of suicides per year ?

4th. Does it increase the real liberty of the patient ?

5th. Has it a beneficial action on the recovery rate ?

6th. Does it produce a state of security or the reverse in the minds of relatives who might be liable to sustain injury from patients labouring under delusional insanity ?

7th. Have pregnancies occurred among patients in asylums worked on the open door system ?

8th. If an escaped patient commits suicide or is accidentally killed, what public inquiry, if any, takes place ?

In the Argyll Asylum report for 1881, 81 per cent. of the men and 54 per cent. of the women are stated to be on parole. Now, during the time I have been at Garlands Asylum, I am certain that no medical man, with the class of patients here, could have granted parole to this per centage ; so that I think it highly likely that if we get, as really is properly due to us, a careful and complete paper or papers on this subject, we may find certain lines of indication for the proper use of the open-door system. Even in medicine, with drugs, new remedies are usually made use of with an indiscriminativeness which afterwards astonishes ourselves.

There are two other subjects which I trust will also be brought before us in a specific and accurate shape. The one is asylum farming as a remedial agent, and from a pecuniary point of view. To anyone who will contribute a paper on the subject, I shall gladly give such information as to the results here, more especially the monetary results, as lies in my power; and the report of Garlands Asylum for 1882 contains an analysis

of the results of 10 years' treatment, which could be easily used for comparisons. The other subject is asylum night-nursing in the North. In England, of late years, much attention has been devoted to continuous supervision of the epileptics and the actively suicidal, and also to the proper nursing of the sick. In several of the Scotch Asylums, attendants sleep in the dormitories with the patients. Now, I think it would be most interesting and instructive to have an expression of views on this subject. Of course, I can ask only for the latter—the other two subjects really now demand treatment other than by laymen, or in Asylum or Commissioner reports which deal in generalities.

With these remarks, suggestions and queries, I now offer my mite to what, I trust, will be a rapidly increasing fund.

Admission Card.—For some years I have sent with each admission a parchment slip, on which the name, age, and certain noteworthy particulars about each new case are given, and which is passed on with the patient when he is shifted from ward to ward. I know that this is in use in several asylums. I believe, so far as my memory goes, that I introduced it after seeing it at Morpeth Asylum. I, however, consider it such a useful safeguard that I call attention to it.

Lists of Working Patients.—Each attendant who works a party of patients has a list of names given to him, with those suicidally disposed, likely to escape or to be dangerous, specially marked on the list; and these lists are from time to time altered as necessary.

Directions of a Specific Nature to the Higher Officials, as far as possible, are given in writing on a specially prepared form, with counterfoil.

Orders to Head Attendants are written in a daily order-book, which is carried round at the visit by the head attendants of either side. The assistant medical officer makes the entries in the order-book for the male side, and previous to their being put in force they are, as a rule, read by me, so that I may be thoroughly cognisant of matters in the division which is not so directly under my observation, as, at present, I take charge of the female division.

It may, I acknowledge, be said by some that too much writing, too many rules and directions are the bane of asylums; but we must have safeguards. Hitherto, I am certain, more than their proper share of anxiety, care, and responsibility has fallen on the medical staff; and if matters go wrong, they individually suffer most. A properly divided responsibility, and

a means of clearly proving it, should exist in all asylums. Many accidents, escapes, and other evil occurrences, are just the result of sheer carelessness, neglect, positive disobedience, or want of thought, and a medical officer cannot be ubiquitous; so that system, routine, safeguard, and wholesome preventive measures have to be largely substituted for what in some may be intuitive knowledge, foresight, and caution. As to the mode of giving directions to head attendants in writing, I am convinced of its good results. Few memories are so perfect as to recollect all the small things noticed at a visit to 500 or 600 patients in a three-storey asylum, ¼-mile long. It also enables the head attendant to go and read any special entry to any attendant without unnecessary unpleasantness either to the one or other.

Dietary.—I have been trying to do what most of us aim at, viz., to combine nutrition, pleasant variety, and economy. I have increased the changes of vegetables in winter, dealing largely in onions, which are said to have a specially beneficial effect on nerve tissue, and turnips, which are said to promote good nature—a much wanted requisite in an asylum. In the summer months, as far as possible, the patients here get two fruit dinners a week instead of animal food. Rhubarb, green gooseberry tart, black and red currant tarts or apple tart, with a ration of bread and cheese after it; and on two nights a week, lettuces at tea. I certainly think there should be a difference in the amount of animal food given in winter and summer. I have lately substituted what is called golden syrup for butter with the bread at tea for two nights in the week. I gave it tentatively at first, and the patients, as a body, were so clear that the change was agreeable to them, that I have now made it permanent. With our numbers of 500 it saves over £50 a year, as compared with butter. In many asylums less animal food, more broth, fish, eggs, vegetables and fruit would conduce to the individual good as regards health and longevity of the patients. I hope shortly to arrange a more satisfactory sick diet than I have.

The question of the dietary of large public institutions has, I think, scarcely received its meed of attention. Instead of such a passing allusion as I make, the subject is so important that it merits exhaustive discussion. I certainly should like to have dietary scales, dealing more especially with dinners, discussed in our Journal—the article, quantity, and cost dealt with. A sick diet for each day in a week, dealt with in this manner, might appear among the notes of our Journal, and

perhaps be as valuable as some of the subjects frequently touched on. The subject of beer in asylum dietaries has been well threshed out lately. I gave the experience of this asylum in the "Lancet," of May 14th, 1881. The days have long passed when it was considered that a physician's principal and only duties were to prescribe medicines; a surgeon's, to remove portions of human structure. Dress, diet, recreations, internal and external surroundings, are all within our province; and those who can include in their survey the widest view of all that relates to their patient must necessarily be the most successful practitioners.

Dress. Men's Ties.—Those in use here were not very nice-looking, and were all the same—black stocks buttoned at the back. I have had in use for a considerable time, and am satisfied with, ties like sailors' knots, or the shape as at present considered fashionable, made in different sizes, and buttoning at the back; the material Turkey red, and different colours of printed cotton. Such ties can be made at a cost for material of about a penny each; and from their brightness, tidiness and variety, very much improve the general appearance of the male patients. They cost so little that when dirty they are done away with.

Clogs.—The farm-working male patients, and women in the laundry, always were shod with clogs when at work. Some years ago I introduced the wear of clogs when out of doors for all the patients, and I am satisfied with the result, as regards keeping the feet warm and dry, diminishing the dirt brought into the house, and decreasing the expenditure in shoe leather. Among the working classes on the Border the use of clogs is very common, and I am rather astonished that a custom conducive to health and economy has not been introduced into other asylums, especially those asylums where farm work is a chief feature—asylums situated where the climate is exceptionally wet, and the ground under foot is almost always damp. Comfortable, well-fitting clogs can easily be obtained; and very few of my patients, even those who previously had not worn them, complain in any way of their use.

Structural.—Acting on a proposal of mine, Mr. Cory, the architect of this county, has fitted up the water-closet blocks of the recently-built extensions of this asylum in a manner which appears to me, from its simplicity and from the material used, to be an improvement on any mode I have seen. The w.c.'s and lavatories are in a block separated from the asylum by a narrow neck, with opposite windows in the neck. The w.c.'s

on each flat, and on the three flats, have water supplied from one cistern by a small main. The flushing of the individual w.c.'s is effected by a weighted handle at the side of the seat, which is self-adjusting, the water only flowing while the handle is pressed. The w.c. cistern has a small pipe entering into it from the hot water cistern, properly stopped by valves to prevent return; so that in extreme frost sufficient hot water can be turned on to prevent any risk of the w.c. freezing. During the severe frosts, some winters ago, I believe much discomfort was experienced in many asylums from the w.c.'s freezing. Such an arrangement as this prevents such a contingency. All the pipes connected with the w.c.'s are of galvanised iron.

Lavatories.—I had been much troubled by the old lavatories in this asylum always getting out of order—the lead pipes expanding and giving way from the action of the hot water. I had the following carried out in the new lavatories. The waste pipe under the basins, and its downright communication with the basins, are both made of galvanised iron; the longitudinal waste pipe, of 3-inch diameter, has a large screw-plug fixed in it at intervals, so as to allow of its being cleaned out if it gets stopped, as frequently happens in asylum lavatories. The waste pipe has a fall of an inch in nine feet.

Bath Rooms.—All the pipes in the bath-rooms are placed together in an iron-covered box, with provision for a runaway in the event of a burst, so that neither the floor of the bath-room nor the ceiling below may be injured.

CLINICAL NOTES AND CASES.

Case of Murder during Temporary Insanity induced by Drinking. Epilepsy (?) Acquittal on the ground of Insanity.—By D. Yellowlees, M.D., Glasgow Royal Asylum.

George Miller, a private in the 74th Highlanders, returned from the Egyptian war to the depôt of his regiment at Hamilton, on 28th December, 1882, and two days later he was discharged to the Army Reserve, from which he had been summoned for active service.

He had been drinking freely each day since his return. On the evening of December 30th, he left Hamilton by train for his home in Glasgow, but before reaching his house he was found drunk and incapable on the street and was taken by the police to the Southern Police Office, Glasgow, about 8.15 p.m. Although obviously intoxi-

cated, he was perfectly quiet when received there, was able to give his name, age and residence, and to walk upstairs with little assistance.

In reply to his questions he was told that he would get out when he was sober. He was placed in a cell which had already a helplessly drunk inmate, there being great demand for such accommodation on the last nights of the year.

The cell was visited every half-hour by the turnkey who on each occasion found the men soundly asleep side by side on the wooden bed of the cell.

This was their condition at 10.45 p.m., no noise or quarrelling had meanwhile been heard, although the cell was immediately over the waiting-room, but at 11.10 when the turnkey again opened the door he found the first occupant of the cell lying in the middle of the floor covered with blood and apparently dead, while Miller was sitting quietly by the fire with his arms folded. When asked how the man came to be in this state, Miller said he knew nothing about it, but the blood on his hands, clothes and boots showed, what post-mortem examination confirmed, that he had kicked his neighbour to death.

Being at once charged with the crime by the officer on duty, he repeated that he knew nothing about it. As to his condition when so charged, the officer testifies: "He appeared to be quite sober and answered all the questions about his age, name, nativity and residence distinctly and promptly; he was very cool and collected." The turnkey similarly testifies: "If nothing had occurred I would have let him go out as sober."

Dr. James Chalmers, Police Surgeon of the District, was fortunately on the spot, and saw Miller immediately. His evidence is: "The prisoner was very calm and collected when the charge was preferred against him; he did not appear to be drunk, but seemed to be dazed. I thought his mind was affected. I thought it probable that his insanity might have been produced by drink, and that it might pass away when he got sober. I have seen him repeatedly since, and he seems to be well enough now. There might have been disease of the brain, but I could not discern any symptoms of it. I think he was suffering from insanity when charged with the murder, but he was all right next forenoon. His insanity might have commenced during a drunken sleep."

This evidence was given at the Glasgow Circuit Court, on the 16th February, 1883, when Miller was tried before Lord Deas, on the charge of murder.

Dr. Robertson of the City Parochial Asylum and the Reporter gave evidence for the Crown, as to the prisoner's mental condition. Their opinion was founded largely on Miller's previous history as obtained from himself and from the precognitions of witnesses. It is as follows:—

George Miller, age 27, is a native of the North of Ireland, and was employed as a labourer until he enlisted about seven years ago.

He has taken to drinking since he joined the army. He has never had venereal disease. His education is poor, he cannot read nor write further than in signing his name. His intelligence is below the average; although he has just returned from Egypt he cannot recall the name of any place except Tel-el-Kebir, Cairo and Alexandria, nor does he know the name of the one-armed General who commanded the Highland Brigade of which his regiment was a part. Some of his comrades in the regiment appear to have regarded Miller as peculiar, self-centred and rather weak-minded; others saw nothing strange about him.

In answer to special enquiries Miller said that before he enlisted and when quite sober he frequently had short turns of "dizziness" in his head, when everything appeared to be whirling round, and he felt queer and giddy, and seemed to lose himself. These turns usually lasted some minutes and they were preceded and followed by very severe headache. He has had similar turns while in the army and has repeatedly been obliged to fall out of the ranks on account of them, or to take hold of someone to save himself from falling.

These turns have occurred both at home and abroad, but chiefly in hot weather. They were never reported to the surgeon of the regiment. It was alleged that a comrade had seen Miller in a convulsion fit, but this man did not come forward. Miller says that he never had a fit so far as he knows, nor have there been fits or insanity in his family. Enquiry elicited that he had frequently wetted his bed when asleep after a bout of drinking, and that he had done this perhaps a dozen times in his life when he had not been drinking at all; also that at home, when quite a grown-up lad and almost as tall as he is now, he frequently wetted his bed, perhaps once a week or oftener.

Soon after enlisting he volunteered into a regiment that was going abroad. At Penang in 1877 he drank a great deal of the native spirit. When confined in the guard-room there for drinking, a comrade says that he was desperately violent, and flung himself against the bars of his cell so that he had to be tied. On a like occasion he broke his spoon and tried to cut his throat with it, but of this suicidal attempt he was entirely ignorant until told of it afterwards.

In 1880, his regiment was stationed at Maryhill, near Glasgow, and on one occasion when he had been drinking and was late in returning to barracks, he flung himself over a bridge in Glasgow into the river Kelvin; he was much bruised by the fall, had some ribs broken, and was some months in the regimental hospital in consequence. To the gentleman who assisted him out of the bed of the river and asked him why he had done this, he said in a calm and rational manner that he had overstayed his leave through drinking, and did not like to go back to the barracks. When taken to the hospital he seemed to have completely forgotten what he had done, and he solemnly declares now that he has not, and never has had, the very faintest remembrance of

having leapt from the bridge. From what he has been told, he does not doubt that he did so, he perfectly remembers walking along the bridge on his way to the barracks, and remembers finding himself in the hospital, but all that intervened seems a blank; he can recall nothing whatever either about the fall or the assistance rendered him or his reply to the person who helped him.

In 1881, when he had again been drinking, he suddenly and without the slightest provocation or excuse, assaulted and struck with a stick a woman, quite unknown to him, who was quietly passing in the street in Anderston, Glasgow. For this offence he was tried before a magistrate and sent to prison for 30 days. He declares that he never struck a woman in his life, and has no remembrance of being accused of such an offence. He knew that he was drunk, and imagined that he was sent to prison on that account.

In the spring of 1882, at Aldershot, he was wildly excited after drinking, jumping about the room, and wishing to leap over the verandah.

Referring to the present occasion, he says that he reached Hamilton on Thursday, December 28th, and that he drank freely on that and the two following days. On Saturday evening he went, accompanied by some comrades with whom he had been drinking, to the railway station in Hamilton, to enquire as to his train for Glasgow. Finding there was no train for some time they returned to the public house for more liquor, and from that point he remembers absolutely nothing until he found himself in a cell in the daylight and saw that his hands were stained with blood. He supposed that the blood had come from his cheek where a small abcess had been recently opened. A man who was standing near the door of the cell asked him if he knew what he was there for, he said "no," and was then told that he had killed a man. He could not understand or believe that statement, but could recall nothing that had occurred. This intervening period is still an absolute blank. He remembers nothing about the railway journey, nothing about being taken to the police office, nothing about any quarrel, nothing about assaulting or kicking anyone. His whole manner gave the impression of entire truthfulness; when pointing to the wall of his cell he said that he remembered "no more nor that wall" what had occurred between returning to the public house in Hamilton on the Saturday evening and coming to himself in the police cell in Glasgow late on the Sunday morning.

Judging from this history the medical witnesses were of opinion that the deed was committed during a temporary attack of insanity. The jury returned a verdict of acquittal on that ground, and the prisoner was ordered to be confined during Her Majesty's pleasure.

There can be little doubt as to the correctness of this opinion, though some may demur to the complete exculpation

of a man who wilfully drank to excess after so many warnings as to the dangerous condition which drinking induced.

Hallucinations or delusions leading to dangerous violence are of course frequent in the insanity of intemperance.

Transient delusions of a like kind may follow even a single carouse.

Taylor, in his "Medical Jurisprudence," mentions a case tried at the Norfolk Assizes in 1840, where two friends got drunk together, and the one killed the other under the idea that he was a person who had come to attack him.

He quotes a similar case from Marc, where the one killed the other under the belief that he was an evil spirit.

An interesting case of a parallel kind, though less tragic in its result, occurred near Airdrie. A young farm servant, in sound health and of sober habits, had spent the day in Airdrie, and had drunk freely. When on his way home in the evening, he was overtaken by some acquaintances, who found him fiercely fighting with a milestone on the roadside. His knuckles were bruised, peeled and bleeding, and they had difficulty in getting him to leave his supposed antagonist. When he came to himself in the morning he could not imagine how his hands had been injured, he could recall no such occurrence, and would not believe the explanation given him until he went to the milestone and found it stained with his own blood.

The degree of obliviousness as to what occurs during intoxication varies greatly in different subjects, and subsequent obliviousness does not necessarily imply unconsciousness while intoxicated. The tendency to violence under liquor also varies greatly, and the violence may be unprovoked or may be merely the result of a quarrel.

The absence of witnesses must leave the exact occurrences doubtful, but in Miller's case the cell was so situated that anything like an altercation or a fight must have been overheard. Probably Miller was suddenly awakened by some movement of his drunken neighbour, and finding a man beside him, imagined that he was being assaulted or that a stranger had come into his bed; whereupon he dragged the intruder off the wooden bed, stunned him by the first kick, and then completed his fatal assault on an unresisting victim.

If this be the true history of the deed then the case was parallel to those cited, and the violence was the result of a temporary delusion induced by an excessive dose of alcohol.

There is however another explanation of the condition which the history very strongly suggests.

The incontinence of urine in youth and even in early manhood, the recurrent attacks of giddiness during his whole life, the desperate but meaningless violence, the sudden leap from the bridge, and the total oblivion of all that had occurred during the attacks undoubtedly point to epilepsy as the explanation of the case.

The fierce and fatal violence occurring suddenly on awaking recalls the case of murder by a somnambulist * and, like it, certainly suggests an epileptic seizure occurring during sleep.

It is the fashion to call every seizure which we do not understand "epileptic," and we are apt to think that we know more about a seizure when we give it a Greek name, but the term does not seem misapplied in this case.

If the attack was really epileptic, it is very interesting to find that the alcoholic epileptic convulsion can be replaced by an explosion of violence, just as ordinary epilepsy occasionally takes the form of mental excitement instead of physical convulsion.

Note on a Case of Impulsive Insanity. By Richard Greene, L.R.C.P., Medical Superintendent, County Asylum, Northampton.

At the Northampton Winter Assizes, T.L., a clerk, was tried for a homicidal attack on his mother. Shortly before the trial, but several months after the attack, I was asked by the solicitor for the defence to examine the prisoner, with a view to forming an opinion as to his probable mental state at the time of the assault, a difficult, if not impossible, task to have assigned to me.

The prisoner was a somewhat sparely formed youth of 19 years of age; his features regular, and expression not unpleasing; his face pale, and his temperament bordering on the nervous. He seemed fairly well educated for his station, and answered all my questions willingly, and with but little if any reserve. As far as I could judge, he made no attempt to deceive me in anything, and altogether it would be hardly possible to imagine anyone in manner, appearance, or

* "Journal of Mental Science," October, 1878.

behaviour further removed from our conceptions of a criminal than he was.

He told me that for a year or more he had suffered from almost constant headache, and he referred the pain to the parts corresponding to the longitudinal fissure. His memory was good. He talked about his school days, about his work in the office, about his companions, his pursuits, his family, and finally about the horrid deed for which he was in a few days to be placed at the bar. When talking about the assault he was as unmoved and apparently as indifferent as when he spoke of his invoices and his ledgers. He said he tried his utmost to resist the impulse, but found it uncontrollable. After the act, "something told him he had done wrong, and he felt as though his brain were on fire."

This was all that I made out for myself—all that I could have stated in a witness-box: probably more than I should have been allowed to state; and when asked the question, "In what state did you find the prisoner?" I was bound to answer that I detected no conclusive evidence of insanity, and it was ruled that I could not state my opinion of the prisoner's mental condition at the time of the assault.

I stayed in Court throughout the whole of the trial; I made notes of the evidence, and through the kindness of the prisoner's solicitor I was allowed to read not only the depositions, but also private letters bearing on the prisoner's previous history. I am thus able to lay before the readers of the "Journal of Mental Science" an account of a case of a somewhat rare form of insanity—rare at least as compared with the other forms which are met with within the walls of our county asylums. I may premise my account by saying that T.L.'s relatives bear a highly respectable name; no stain of crime or insanity had hitherto darkened the annals of the family, and the young man himself was universally described as a most affectionate son and steady in his habits. The first paper I shall refer to is a letter written by the head of the school which T.L. attended when a boy of twelve. He writes that periodical fits of moroseness occurred, and during these times it was impossible to elicit answers to questions put to him. Sometimes his conversation was rambling, incoherent and vague, and he would break in with a remark not having the least bearing on the subject matter. At other times he was led away by an exuberance of spirits far from natural. He would lay his hand on his teacher's arm, look fixedly in his face, administer a severe pinch or kick, then laugh and run away. Shortly he would return and express sorrow for what he had done. Here is evidently described the first glimmering of that terrible disease which ultimately led the poor youth to the committing of an awful act, placing him at the bar on a grave charge which would have been a capital one but for the almost miraculous recovery of his victim. After leaving school he spent some time in a lawyer's office. Sub-

sequently he took the post of clerk in a merchant's office, and for some years the sypmtoms of a disordered mind seem to have been in abeyance. Beyond a certain amount of reserve, unusual in anyone of his age, nothing seems to have been remarked about his mental state until we come to March, 1882. On the 24th of that month, he was sent to the railway station with a parcel which he was to despatch to Birmingham. Without the slightest preparation he went to Liverpool, where he stayed a fortnight. He said nothing about his intended journey to anyone, and although the day was a bitterly cold one, he left his great-coat in the office. This journey seems to have been made in obedience to some sudden unaccountable impulse, and on returning he could give no explanation of it. There was not the faintest suspicion that he had been behaving improperly either in Northampton previous to his journey or in Liverpool during his stay there. This freak caused his friends much anxiety, and he seems to have had some remorse for the grief he caused his mother. He was more than usually kind and attentive to her afterwards. He went back to his office work, which he performed satisfactorily and punctually; but soon further symptoms of insanity showed themselves. One of his fellow-clerks stated that he often noticed him staring vacantly out of the window. At other times he seemed absorbed in contemplation; he would knit his brows and grind his teeth, or remain for hours without speaking. All these symptoms were more pronounced a few days before the assault, and the clerk remarked to a friend that "something ought to be done about Thomas." But, of course, nothing was done, and it so happened that on the fatal day he was brighter and more cheerful than he had been for some time. In the morning, on the 4th October, he ordered a present for his mother, took his meals as usual, and in the evening went to a young men's meeting connected with the church he attended, returning home about nine o'clock; had supper, and read a religious book, entitled the "Pathway to Heaven." He then said good-night; kissed his mother, and went off to bed. Shortly afterwards his mother went to her room. He lay down in bed, but could not sleep. The awful impulse had seized him. In vain he tried to shake it off. He got out of bed, went down to the coal-cellar, laid hold of the coal-pick, which, although in the dark, he found at once without search or fumbling, and returned upstairs with it to his mother's room. The door creaked as he pushed it open, and he hoped the noise would awake her; but alas! there was no such result, and in an instant the pick was buried in the sleeping woman's neck. A second and a third blow followed: one with the sharp end of the hammer and one with the blunt end. It was then he felt as though his brain were on fire. He left the house, wandering purposelessly and aimlessly in the neighbourhood of Kettering. He slept either in the fields or in barns, and for food he had one or two meals from cottagers, but fed for the most part on wild fruit for three days, and

then, having come to himself, as he expressed it, walked back to Northampton to his mother's house. He asked if she were dead, and on being told she was not, said he was glad to hear it, and offered to give himself up to the police. In the morning he was taken into custody.

Such is an epitome of the evidence given in Court, and it is amply sufficient to convince any medical man, and almost any layman, that the prisoner was unquestionably insane. He was ably defended, and his counsel, Mr. Attenborough, in a forcible and eloquent speech laid before the jury the grounds on which he raised the plea of insanity. He pointed out that there was absolutely no motive for the act; no preparation for it; no concealment of the weapon; no attempt to escape the consequences; but an apparent indifference as to what became of him.

The Judge, in addressing the jury, said that to acquit the prisoner on the ground of insanity they must not only be satisfied that he was insane, but that in consequence of his insanity *he did not know the act he was doing was wrong.*

The jury, without leaving the box, returned a verdict of not guilty on the ground of insanity, and the Judge ordered the prisoner to be detained during her Majesty's pleasure.

In reviewing this case, one cannot help being once more struck with the strange state of the law relating to insanity. It had an odd sound in medical ears to hear a judge lay it down *that the fact of insanity was not sufficient to sustain the plea of insanity.* In civil courts a very slight trace of mental disease may be enough to nullify a contract or set aside a will, but when the life or liberty of a fellow creature is concerned, insanity of any degree is inadequate to obtain acquittal, and it needs the absence of knowledge of right and wrong to sustain the plea. So at least it seems. By the French code it is enough to show that the crime is a product of insanity. "There is no crime nor offence," says Article 64 of the French Penal Code, "where the accused was in a state of madness at the time of the action." To alienist physicians this will almost justify the prediction of a living author that Napoleon will be remembered as a law-giver long after he is forgotten as a general. How differently will the clumsily expressed opinions of the English Judges of 1843, be remembered!

*Clinical Abstracts.**—*(a) Three Cases of Phthisical Insanity; (b) A Case of Insanity following on Alcoholic Excess and Lead Poisoning.* By A. Campbell Clark, M.B.Edin., Medical Superintendent Glasgow District Asylum, Bothwell.

(*a*) *Three Cases of Phthisical Insanity.*

Whatever diversity of opinion may exist as to the name *phthisical insanity*, there can be no doubt of this—that we frequently find associated with phthisis pulmonalis a group of mental symptoms which strikingly individualise such cases, and which embrace, in whole or in part, the features delineated by Dr. Clouston in his description of the disease.

Three well-marked illustrations are at present under my care, and I propose to describe them collectively, in order that you may the more easily grasp points of resemblance and difference.

They are all men, ages respectively 38, 34, and 32. They are all dark, delicate complexioned, with well-chiselled features, the phthisical habit and countenance well marked; an intelligent but nervous expression, and physical signs of lung disease. We shall distinguish them as A., B., and C. In all three incipient lung disease was observed on admission, and only the left lung affected; no moist sounds were audible. Owing to the absence of symptoms, consumption had not been suspected by the relatives. A. has been nearly two years in the asylum, B. has been 13 months, and C. seven months. Phthisical symptoms are now evident in all the cases, but they are not serious, and their development has been slow. Wasting has not been a prominent symptom, and this is not surprising, for they are all men of spare habit, and could scarcely afford to do much in the way of atrophy. Their weights are recorded as follows since their admission: A, on admission, 9st. 13lbs.; highest, 10st. 6lbs.; present 9st. 11lbs. B., 8st. 3lbs.; present and highest, 8st. 6lbs. C., 9st. 4lbs.; present and highest, 9st. 11lbs.

They cough little. The cough is chiefly mucous in character, but in A.'s case it is muco-purulent. Cough is most frequent in C.'s case. A. and C. exhibit a hectic flush; B. has slight night-sweats. They agree in suffering from constipation, which is most obstinate in A., who also suffers from piles, and they all, in spite of good appetites, are capricious regarding their food. When the appetite is most

* Read at the quarterly meeting of Medico-Psychological Association, held in Glasgow, April, 1883.

capricious I have noticed the mental excitement very pronounced. The average pulse and temperature are :—

	M.	E.	M.	E.			M.	E.	M.	E.			M.	E.	M.	E.
A.,	76	84;	98·3	98·5	...	B.,	76	84	97·8	98·3	...	C.,	65	67;	98·1	98·2

Both lungs are now affected in A., B., and C.

The insanity in A.'s case has existed for several years, and is said to have arisen from sunstroke when abroad. I have been able to trace an insane and phthisical heredity in C.'s case only, but the history of the others has not yet been fully elucidated. They are all dangerous patients, but not suicidal. They agree in several respects regarding their mental state, and these I propose now briefly to describe. *Firstly*, they are all subject to spurts of excitement coupled with mental exaltation, during which ideas or delusions of self-importance are peculiarly prominent.

A.'s state is best described by saying that he has "a mighty opinion of himself." He affects to look with contempt, and from a superior eminence, on those who have rubbed against him in the course of life. His language towards such is one of unmeasured abuse. They are always wrong ; he must of necessity be right. He is a man of average education, and a grocer by trade.

B. and C. exhibit exaltation in a more decisive way, and not only in religion, but in secular matters. B., by his own showing, exercises a very important influence on the course of political events and the deliberations of the Bank of England Directors. He, moreover, considers himself an authority on theological matters. C. is decidedly vain, and seems to derive immense satisfaction from his attempts at literary composition. To his mind Shakespeare is nobody ; he could write greater plays himself. He considers himself qualified to undertake any architectural commission, and he is, moreover, an authority on the interpretation of Scripture.

In the second place, they agree in being a prey to strong suspicions, which appear to me often to arise out of a necessary snubbing of their exalted notions. B. works himself into a violent passion on finding that his letter to the Bank of England had not been forwarded, and the muscles of his face quiver with excitement. He threatens vengeance, and looks it every bit, but in a few minutes he lapses into a state of gloom, which gradually deepens, and for days his expression and manner are those of deep suspicion, sullen defiance and violent hatred, the evidence of which may come out more forcibly after weeks or months of dismal brooding, and be wakened into a flame of actual violence by the stimulus of some very trivial incident which *per se* would scarcely cause disturbance at all. This was well seen in the case of A., who, having for months proved amenable and sociable, though nursing a dangerous grudge against outsiders, suddenly stopped work because a proposal for his release could not be entertained. He then and thereafter nourished in moody silence a grudge against myself for months, and only burst out into actual violence

long after, when in most minds the memory of the initial circumstance would have been obliterated. He made a complaint about his food the occasion for such an attack, and yet his appetite has been so good that he never missed a meal, nor previously hesitated over any article of diet. A few weeks later, when this attack had spent itself, he frankly stated that the only grudge he had against me was the old grudge about his liberation. This man, it may be stated, was sent as a "dangerous lunatic" to the asylum. He had broken a man's arm with a poker, had attempted his wife's life with a knife, and had threatened the lives of several lawyers and doctors. C. is less suspicious, and less moody, but it is only a difference in degree. He believes that he was decoyed to the asylum by a conspiracy on the part of his relations, and at times he gets excited and threatening on what appears a trivial provocation. Suspicion with A. and B. is an overruling disease. It is warped into their natures. C. is less a slave to it as yet. In A. and B. I have been at a loss to determine whether delusions or some unhappy experience have begotten the suspicious habit, or whether the suspicious habit has first begotten delusions. Suspicion and jealousy did not appear in the case of B. till a year after mental derangement had shown itself, and, so far as I can learn, delusions preceded them. C. only gives expression to suspicions when excited, and was for some years insane without the co-existence of morbid suspicion. A. accused a lawyer of improper intimacy with A.'s wife. The lawyer was his agent. This proved a delusion, but it is a fact that his wife was not very circumspect in her conduct. B. looks on me as an enemy who has designs against him, and a few days ago he interrupted a conversation I had with his wife, and insisted on being present at the interview because he mistrusted me. I am unable at present to go back sufficiently far into their histories to be able to trace the inception and development of the first delusion or morbid suspicion.

A. and B. are frequently seen laughing to themselves, and A. mutters a good deal at night when awake. Of late he has been very noisy at night, frequently yells out "Murder" and "I'll do for the devils yet." B. and C. sleep well.

As their disease developes they work less and less, brood more, and become more threatening and dangerous. Excitement exhausts them very quickly, and they get very pale, and seem to feel this themselves. Their life is one long unremitting warfare with the powers that be, and by their own showing every man's hand is against them. A. and C. have attempted escape, both by breaking parole, which was tried as an experiment. They fought most doggedly, kicked and scratched most viciously, rather than come back. B. was allowed on parole to his child's funeral, and came back of his own accord. Their one cry is to get out. For this purpose they exhaust much steam in writing to my "lord" this and my "lord" that, and the disappointments which necessarily follow tell very sorely upon them. C.

is the only one who chances at times to give you a smile. A. used to be more genial and sociable. B. has not been so in my experience. They are all tending more and more to make for themselves an isolated position in the house, which is assailed unavailingly by kind attentions and various conciliatory endeavours. Their attitude is one of bitter animosity. Nothing pleases them ; medicine or extras prescribed to suit their caprice are indignantly tossed aside as useless ; what is fancied in the morning is called "disgusting" in the afternoon. And so their weary, miserable lives roll on ; the lung disease progresses slowly, and their misery seems to deepen with its progress.

The duration of the mental disease is in A.'s case over ten years, but he was many years of that time engaged actively in business, and made money. The duration in B.'s case is over three years. C. had an attack six years ago. The present attack has lasted a year. I look upon them as cases of nervous constitution combined with a strumous diathesis. The spurts of excitement and exaltation are unusual, but the irritability, suspicion, caprice, and fits of sullen, moody abstraction, combined with unmistakable phthisis pulmonalis, clearly indicate their appropriate classification.

(*b*) *A Case of Insanity, following Alcoholic Excess and Lead-poisoning.*

J. M., admitted 21st September, 1882, æt. 45, married, a foreman painter, insane a few days, first attack, assigned cause intemperance.

History.—No heredity known ; he has been addicted to intemperance for some years, and six months before admission received (while intoxicated) a severe scalp wound of vertex. For two years prior to admission hair has been falling off in small areas at a time, leaving bald spots on head and face. He has for years been very costive and occasionally suffered from colic, but had no wrist drop or other symptom of plumbism except gum line. As a foreman painter he has worked a good deal with lead.

Mental State as given by Certificate.—Nervous and excited ; has no ideas of his whereabouts. Is under the delusion that he is pursued by enemies.

State on Admission.—Very shaky and tremulous, pupils of natural size, but slightly irregular outline ; hands tremulous, tongue tremulous, slight ptosis of left eyelid. In a state of quiet coherent delirium, imagines he is in his own house in Glasgow. He thinks he has some beer in a cupboard, and endeavours to open it for a drink ; has delusions of identity, mistakes the name of every one he comes in contact with. He is of sallow complexion, stout build, muscular system fairly developed, no evidence of bodily disease. Has a small abrasion over right olecranon. Temperature on admission 100·6 ; no sign of baldness.

Course of Case.—September 23rd. The abrasion of right elbow has given rise to an erysipelatous inflammation, and his temperature has risen to 102·6. He is very restless and sleeps very little, appetite fair, but his bowels are confined. Ordered lotion for arm and a dose of sulphate of magnesia.

September 26th. The inflammation of arm is passing into suppuration. Has had one draught of bromide of potassium and chloral hydrate, owing to severe excitement his delirious state having been more pronounced, and great difficulty being experienced in keeping him in bed. The temperature rose to 103°.

October 1st. Abscess opened and counter opened ; a free drainage of healthy looking pus took place, temperature has considerably fallen, and the mental excitement is more subdued ; he is still, however, delirious, and has delusions of identity.

October 7th. Since last report the abscess has almost ceased to discharge, and the drainage tube has been removed ; delusions of identity as to persons, time and place still continue ; he is quite coherent, understands quickly what is said to him, and answers without hesitation, but often incorrectly. This is evidently due to an erratic memory, which is continually tripping him up. Attention has been directed to the probability of lead-poisoning having had its share in the production of his insanity ; and it is observed that there is a well marked blue line round the gums. At present he looks pale and somewhat exhausted. There is still tremor of hands, and ptosis of left eye-lid. His walk is unsteady, and he is apt to fall when turning quickly round. No spinal myosis; tendon reflex normal. His memory is fairly good as regards events prior to his illness, *e.g.*, he states what is true when he says that he took advantage of his wife being from home to get on the "spree ;" but he cannot remember events of half-an-hour ago. His sight and hearing are good. There has not been noticed any visual or other hallucination ; pupils, as on admission, active, but irregular in outline.

October 18th. Was at a conjuring entertainment last night; had a vague consciousness of what was going on, and when he came out of the hall remarked that the people were mesmerised (there was no mesmerism). This morning has no recollection whatever of the entertainment ; delusions of identity are still present, but not so prominently as at first. To have purgatives of Epsom salts twice or thrice a week.

November 20th. Saw two friends yesterday, recognised them, and at once called them by name, but could not tell them my name. To-day has no recollection of having visitors yesterday. Delusions of identity are disappearing, but slow to remember the days of the week. Is less docile and more touchy and emotional; walks more steadily. Put on iodide of potassium·15 gr. dose thrice daily.

November 24th. Nervous, tremulous, excited, and crying a great deal, wishes to go home, and is anxious about his wife, who is soon

to be confined. Still, however, he is easily appeased, apt to mistake his bed, and lose his way in the ward.

December 28th. There is no very appreciable progress since last report, except that he is learning the names of officials and patients better. He is apt to have fits of depression, and prefers to keep out of sight at the doctor's visit, because the doctor tests his memory, which makes him nervous. Was at Christmas tree last night, and received a comical present from the tree. This morning he has a dim recollection of getting something, but he cannot tell what it was. He is often witty, and banters the attendants and patients a good deal.

The course of the case from this date onward was one of steady improvement, the memory became more retentive, but he often forgot instructions received. As regards all details connected with his trade his memory was almost from the first quite good, but for a long time it was evidently incapable of retaining and reviving at will new impressions. In the beginning of February he made himself useful in the sick ward, and on the 24th was discharged recovered. The points of interest in this case are these:—*First:* Mental excitement before admission, such as might be expected after a fit of drinking. *Second:* Delusions of identity of long duration, showing themselves after the alcoholic effects might reasonably be expected to have disappeared. *Third:* A decided weakness of memory, an inability to register and recall at will new impressions (this was exaggerated by nervousness). This peculiar affection of memory is, I understand, not unknown. It may, in fact, be common in cases of mental disorder from lead-poisoning, and may be less frequent in asylums than in ordinary hospitals, seeing that *per se* it cannot technically be considered a symptom of insanity. *Lastly:* Certain disorders of the motor system, such as hand tremor, and an unsteadiness of gait, a difficulty in turning sharply round and an irregularity in shape of the pupils. With the exception of the last, these had disappeared as he got stronger.

Subsequent Note.—This man reported himself two months after discharge. His memory had improved very little. He was able to resume work, but required a memory-aid occasionally in the shape of an overseer; and when he got instructions was at first confused, until fairly started with the job in hand. Blue line is still present, but less marked than on admission. Complains of weight over vertex, and of bad taste in mouth. Is now a journeyman, and not able for a foreman's work as previously.

Unilateral Sweating: Note on Further Cases of. By Wm. Julius Mickle, M.D.

In the "Journal of Mental Science" for July, 1877, p. 196, I placed on record some examples of unilaterally increased sweating, or hyperidrosis, particularly three cases occurring in general paralysis. In one of these cases of

general paralysis, the unilateral excessive sweating affecting one side of the face and head was not associated with any local convulsion or paralysis, but the eyeball of the same side was sightless, and completely withered and shrunken, as the result of disease following an injury incurred long before he came under care. In the second case, convulsion and paralysis affected the same side of the body as that on which the accompanying unilateral facial sweating occurred; and in the third case the first appearance of the sweating followed the onset of hypochondriacal symptoms, and was contemporaneous with slight transitory unilateral facial paralysis of the same side, although the tendency to this sweating remained for a time after the local paresis had cleared up. In the first and third of these cases the right was the side of the face affected, and the left in the second. Full details of all these cases were given in the paper.

In that part of the above-mentioned paper which treats of the pathology of the symptom, p. 206, *loc. cit.*, I discussed the question whether the sweating was due to some disorder or lesion of the vaso-motor system, or to a morbid excitation of nerves which may be supposed to more directly control secretion, and I suggested that there might be sweat-secretory nerves, which exercise an immediate control over the perspiratory function analogous to that which certain secretory nerves were at that date believed to exercise over some other secretions, as, for example, the salivary. Since that time views similar to those thus theoretically suggested in my paper have resulted from the experiments of Luchsinger, Nawrocki, Adamkiewicz, and Vulpian.

The fourth case mentioned in the same paper, p. 201, *loc. cit.*, was that of an agitated melancholiac, who became phthisical, and in whom, after death, the greater part of the left supra-marginal gyrus was found to have been destroyed and absorbed; while a branched calculus filled the pelvis of the right kidney, which organ was much wasted. The phthisical changes were more advanced in the left lung. The hyperidrosis was of the left side of the face, and was rather less marked than in the preceding patients.

To the above I now add brief notes of two other cases observed since the publication of my paper in 1877. One of these examples occurred in a general paralytic whose symptoms were somewhat obscure and ambiguous; the other was seen in chronic melancholia.

Case I.—J. H. M., Royal Engineers, admitted July 12th, 1879,

aged 34. Recognized mental disease had existed for six months previous to admission, but the affection had come on insidiously; overstrain and anxiety about military office work, and about his change of religious profession were the causes assigned for the mental disease. At first there was gradual failure of memory and increasing feebleness of intellect. He was silent but mischievous, restless, and destructive. It was necessary to feed him; the habits became filthy; he passed urine and fæces in bed. Bedsores made their appearance, and only healed to recur. This was before admission here.

On admission he was emaciated, feeble, helpless, of wet and dirty habits, melancholic, and rarely spoke.

Vomiting became rather troublesome. The mental condition for a time approximated to melancholia attonita.

Later on there was diarrhœa. The tongue also was tremulous, the speech shaky; the pupils were slightly irregular, sluggish, and often unequal, the left being usually the larger.

At last, besides local spasms there were epileptiform seizures, especially affecting the right side and followed by right hemiplegia. These recurred frequently, and in the intervals sweating confined to the right side of the face was often noted. Thus, to take one note only, on January 12th, 1880, he had four epileptiform convulsions, mainly of the right side. Chloral enema. The right lower face and right upper limb were somewhat paretic, and the right side of the face bedewed with perspiration. At times the profuse sweating was limited to the right side of the visage, with a very little on the left side of the nose; at others there was more general and more equalized sweating. The left pupil was the larger: blebs formed on the right hand. 60ozs., and, again, 20ozs. of pleuritic fluid were removed from the left side by the aspirator. Death $6\frac{1}{2}$ months after admission.

As to the necropsy, only the following points need be mentioned here. The olfactory bulbs and tracts were somewhat wasted. There was some atrophy of brain convolutions with œdema of meninges and opacity in fronto-parietal regions. Adhesion and decortication slight, affecting the first and second frontal gyri on both sides, and the left ascending frontal very slightly, also slight cerebellar adhesions. White medullary substance rather pale, and slightly firmer in frontal region than elsewhere. ʒv. serosity in the large lateral ventricles. Faint granulation of ependyma of lateral ventricles. Left hemisphere $\frac{1}{2}$oz. less than right. No very special naked-eye changes in pons Varolii or medulla oblongata. Fluids from cranial cavity $4\frac{1}{2}$ozs.

Case II.—J. C., soldier, æt. 40. Chronic melancholia, with various delusions, formerly suicidal. Thin and pale, he at one time had slight morbid signs at the lung-apices. One morning in November, 1881, he complained of severe abdominal pain, looked ill, was quickly

purged, and became faint, and as if threatened with syncope. I found him pale, with dilated pupils, and the right side of the face beaded with large drops of perspiration, which if removed readily re-accumulated, whereas the left side of the face was only of a greasy-looking, clammy, slight moistness, with no beads.

As to his customary state, the following may be mentioned:—

Hair of head and face partly and prematurely grey, slight yellowish pigmentation of forehead, skin everywhere rough and slightly scaly, central line of features slightly convex towards right side. Tongue flabby, indented, protruded slightly towards the left side; many of the teeth, especially the back ones, carious, broken-down, or missing, and this in both jaws, especially on the right side. Pupils equal, act fairly to light and in accommodation; patch of slight left corneal opacity (following disease about 20 years ago, he said); a scar on right temple, of which he recollected no history. No present indications of syphilis, and he denied having had any venereal disease except gonorrhœa. Heart fairly healthy.

Note.—After the above was written this patient made a suicidal attempt; had delusions as to torture, persecution, and intestinal inaction; hæmoptysis, phthisis, iritis, and keratitis. Then came on indications of pulmonary gangrene. On several occasions was observed unilateral sweating of the right temple and upper part of cheek, there being none above the level of the *ala nasi*, and none on the left side. The hair, also, was damp on the right side of the head, and the right side of the nape was moister and more clammy than the left. On these occasions there was no sweat on the lower neck or on the chest. At times general sweats occurred.

Necropsy (briefly expressed).—Brain flabby. Cerebral cortex slightly atrophied, pale, but mottled. Greenish discoloration and early decomposition of anterior half of basal aspect of cerebrum. Small foul abscess in left second frontal gyrus, and surrounding greenish discoloration. Right fifth cranial nerve somewhat softened, and easily separating from its insertion. In left lung, caseous nodules; patches of decomposition, lower lobe. Right lung adherent; gangrenous patches in upper part, hepatized portions below. Spleen 12½ozs., dark, firm, capsule thickened; containing a small portion broken down into fœtid, ashen grey, semi-fluid material. Liver 51½ozs.; deep-green hue, partially decomposed, and spongy from disappearance of parts of parenchyma.

Insanity of Twins.

Twins in Similar States of Imbecility. By Arthur Fflintoff Mickle, M.B., Kirklington.

Case I.—A. D., aged 40. Single. The elder of twins. He is a very short and strongly-built man ; has a bullet-shaped head and narrow forehead, high cheek bones, a largely developed lower jaw and big mouth. He has brown hair, prominent and shaggy eyebrows, small grey eyes, and is of sanguine temperament. The facial expression is that of a weak-minded, cunning and mischievous person, but frequently he indulges in a broad grin, and then looks rather good-natured.

The only history I can gather, and which relates equally to this patient and his twin brother, is as follows :—Their father was insane, but there is no history of insanity on their mother's side ; other members of the family, viz., a brother, and especially a sister, are of weak intellect. No definite history of phthisis or any constitutional disease could be obtained. This patient has always been weak-minded, has had no serious illness, and has enjoyed good bodily health.

Present Mental State.—He is very childish in manner, is easily led and induced by others to do wrong ; he is very cunning, mischievous, and takes great delight in committing petty acts of theft. His memory and judgment are very defective, and he cannot form an opinion on any subject with which he is not familiar, nor has he any idea of his age ; he can, however, converse a little, and perform many of the ordinary duties of life ; knows the people with whom he associates daily, has some affection for his friends, and can take care of himself. When not allowed to do as he wishes he frequently becomes very passionate, and can scarcely control himself ; usually he is quiet and fairly well behaved.

Case II.—W. D., aged 40. Single. The younger of twins. This man is the same height and very similar in build and appearance to his twin brother. He has the same coloured hair, similar eyes and eyebrows, and is of the same temperament, but his lower jaw is very largely developed and protrudes slightly, and he has a sulky and more cunning facial expression than the other twin. He was never so weak-minded as his twin brother, but of a more passionate, quarrelsome and depraved nature. He was always weak-minded, has had no serious illness, and enjoys good bodily health.

Present Mental State.—He is not so childish in manner nor so good-natured as his twin brother, but often sulks, is very depraved and vicious, and frequently commits petty acts of theft. His memory is weak, and his judgment defective, and he cannot give an opinion on a subject with which he is not familiar, nor does he know his age, but he can converse in a simple way, and knows the people with whom he

associates. He can, like his twin brother, perform many of the ordinary duties of life, and is able to take care of himself, but he is irritable and much more passionate, and occasionally when thwarted gives way to fits of ungovernable rage, amounting nearly to short maniacal attacks. He is, however, usually fairly well behaved.

From the foregoing notes it will be seen that there is a marked resemblance in the twin brothers. Thus—both men are imbecile, and the degree of mental weakness is almost equal in the two, and corresponds, I think, to the first of the three classes into which Hoffbauer divided imbecility. Both are very passionate, liable to paroxysms of anger, very depraved and prone to commit petty acts of theft. They are also of the same height, and are very much alike in build and appearance, but there is a difference in the facial expression, for whilst the younger has usually a sulky countenance, the elder twin's face is frequently brightened by a broad grin or imbecile smile.

OCCASIONAL NOTES OF THE QUARTER.

The Recent Lunacy Appointment.

One feature of this Journal is to comment upon the topic or topics of the Quarter possessing most interest to the special branch of medicine, of which it is the accredited organ. In accordance with this practice we should have offered some observations on an event which has aroused so much feeling as the appointment recently made in the Lunacy Board consequent upon the resignation of Dr. Nairne.

When a similar appointment was made many years ago, Mr. Cairns raised his voice in Parliament against it, but in vain; and equally fruitless was the eloquent appeal made by the then Editor of the Journal, Dr. Bucknill, who acknowledged that he "would fain have avoided the invidious task of commenting upon it, but that the indignant letters he had received from members of the Association made it his imperative duty to express his entire disapproval of the principle or want of principle upon which the choice of the Government had been made;" being, as he continued, a heavy blow and great discouragement to all medical men practising in lunacy, whether in or out of asylums. "How can men instruct who have never learnt? How can men direct the most difficult of labour who have never sub-

mitted to work?" Referring to those who, in undertaking the duties of this appointment, "take great credit to themselves for bringing to the Commission a freedom from prejudice derived from primitive innocence in all that relates to asylums and the insane," Dr. Bucknill incisively adds "as if ignorance were the parent of impartiality!"

There are various ways, however, of marking the feeling which has arisen in our ranks. It would be easy to write a hot and bitter article; it would also be easy to state forcibly, though in the baldest terms, the obvious reasons why this appointment has caused widespread disapproval, we were about to say, indignation succeeding to astonishment; but instead of pursuing either course, we shall follow the example of the Annual Meeting of the Association itself. The members felt, and, as individuals, were not slow to assert, that a glaring injustice had been committed, but they deemed it more dignified, as an Association, to exercise self-restraint, though smarting under the sense of the wrong which had been done their members, and to maintain absolute silence, satisfied that it would be understood that while silence meant assent to the protest contained in the letter addressed to them by Dr. Clouston, it did not mean assent to the justice of the appointment. If, then, we err in thinking that on this occasion silence is golden, we do so in the good company of the Association, by whose "authority" this Journal is published. Speech is indeed but silvern, when protest, however just, would be futile. Now, as in the days of Homer—

> "The man who suffers, loudly may complain,
> And rage he may, but he shall rage in vain."

The Catastrophe at Southall Park.

It is rarely indeed that so sad and fatal an occurrence as the calamity at the Southall Private Asylum occurs to bring home to those who have the charge of the helpless and insane the added risk they incur of loss of life in the event of fire. Little is known of the circumstances immediately attending the fate of the victims of this fire, but it redounds to Dr. Boyd's credit that when he perished in the flames in the early morning of the 14th of August, he was returning to look after the security of his patients, after having seen his daughters to a place of safety, by which they escaped from the house. Much has been said as to the deficient precautions taken against fire in this and

other Private Asylums, including the means of escape. Although in the present instance it would seem that these precautions were insufficient, it is doubtful whether, had they been otherwise, the result would have been different, for such was the rapidity of the conflagration, and the character of the building, that we believe nothing would have saved it from destruction. Of this we are assured by a member of the Fire Brigade who was present, and by a medical man who, among others, hastened to the scene from the neighbourhood. Few of the partitions between the rooms of the house were of brick, and they therefore burnt rapidly. Many private asylums are, we suspect, similarly constructed, being old mansions, chosen, in part, for the attractive appearance they present, as well as for their general comfort. In view of such a catastrophe, it becomes incumbent on the proprietors of asylums to take every possible precaution against fire, and we are glad that the jury at the coroner's inquest demanded an adjournment in order to ascertain whether the Lunacy Commissioners had had their attention directed to so important a matter.* Nothing is known as to the origin of the fire at Southall Park. The kitchenmaid stated at the inquest that she was awakened by some one screaming, and by the cook calling "Fire!" On going downstairs she found the place full of smoke. Dr. Boyd's room was on the second floor. To this she proceeded, and aroused him, and he immediately inquired after his family and the patients. At that time the fire was chiefly in the lower part of the house and under the dining-room. There had been a fire in the grate in the servants' hall, but when the servants retired to bed it was very low. The cook was left to shut up the store-room, but she would not require to carry a candle for that purpose. The above witness had been nine years in the establishment, and she was not aware of any alteration in the heating apparatus. The cause of the conflagration is therefore a mystery, and will no doubt remain so. In addition to the death of Dr. Boyd, his second son, Mr. William Boyd, two patients and the cook lost their lives. It is fortunate that two of Dr. Boyd's daughters were

* Since this article was in type the following verdict of the jury at the adjourned inquest has been given, after hearing Mr. Frere as a witness for the Commissioners:—"Death from injuries received in jumping from the roof of the building during the fire," with the following rider:—"The jury unanimously record their opinion that the laws which give power to confine lunatics should provide sufficient means for their protection from fire, and that the Commissioners in Lunacy should have exercised greater vigilance in causing adequate provisions to be made at Southall Park." Is it possible that the author of "Gehenna" was on this jury?

from home, and that some of the patients were having a change at the seaside.

The sympathy of all, more especially of every member of the Association, has been excited, and the deepest regret experienced, in consequence of this terrible event.

Dr. Boyd was esteemed by all who knew him. His kindness of heart and his evident sincerity of expression made him many friends, and we should not suppose he could have had any enemies. He would often go out of his way to render a service to those who had no claim upon him. He was not a showy man; his abilities were not of the kind which are regarded as brilliant; but he was a hardworking, plodding man, having a definite aim before him. Hence his studies and writings are united by a common bond, and are not mere disjointed essays. His contributions to the pathology of insanity are well known; and his statistics of the insane, derived chiefly from the Somerset County Asylum, are of lasting value, on account of the large number of cases he had at his command, and the scrupulous accuracy with which they were prepared.

Dr. Boyd contributed a paper (on Cholera) to the first number of this Journal; to the second and third volumes, articles on Convulsions, Cretinism, and Epilepsy; to the fifth one, on the Necessity of the Study of Insanity; to the seventh, a contribution on the Causes of Death in Male Patients; to the ninth, the Results of 2,000 Cases at the Somerset Asylum; to the tenth, Cases of 1,000 Female Patients; to the sixteenth, his Presidential Address on the Care and Treatment of the Insane Poor, as also a paper on Puerperal Insanity; to the seventeenth, the Statistics of Pauper Insanity, and Observations on General Paralysis and the Spinal Cord; to the nineteenth, a paper on Tumours of the Brain; to the twenty-sixth, a short paper on the Cure and Care of the Insane, read before the Annual Meeting of the Association in 1880. In the first and second Reports of the Somerset Asylum he insisted on the presence of lesions of the spinal cord in general paralysis, as well as those in the brain itself. He studied the relations of general paralysis and glosso-pharyngeal paralysis, pointing out their pathology.

Among contributions from his active pen to other journals may be enumerated the following:—"On the Weight of the Brain at Different Ages and in Various Diseases," read at the British Medical Association, 1875; "Tables of the Weights of the Human Body and Internal Organs;" "Vital Statistics;" and on "The Pauper Lunacy Laws."

When President of the Association in 1870, the Address he delivered was of the practical character which might have been expected from him. In it he strongly advocated the greater use of workhouses (as at present conducted) for the insane.

It was, no doubt, as the resident medical officer in the Marylebone Infirmary, that he first acquired the extensive knowledge he possessed of morbid anatomy. He was, indeed, never weary of referring to this period of his life, and the lessons there learnt, both in pathology and the treatment of the insane in workhouses.

We are indebted to a former colleague of Dr. Boyd (Dr. Culpeper) for the following reminiscences:—"He was the Lecturer on the Practice of Medicine at the old Charlotte Street (W.C.) School of Medicine, and at that time the Resident House Physician, Marylebone Infirmary. The School had but a very short existence, and when I became a resident pupil of Dr. Boyd's at the Infirmary, June, 1842, the School had terminated its existence. Dr. Boyd held no appointment in England after he left Dublin till he was appointed an out-door assistant medical officer to the Marylebone Infirmary, which he held for some time; his colleague was Dr. Bernard. He succeeded Dr. Clay as resident house physician. Dr. Boyd was so modest and retiring in his nature that he was almost passed by in public; and I suppose those who are writing about him knew but little of the inner man, but I can say from the most intimate acquaintance with him since June, 1842, that he was unselfish by nature, entirely free from jealousy, envy, or affectation, steady to the good old lines of his Dublin and Edinburgh teachers, but always ready and willing to listen to his juniors, of any degree, in any matter for the advancement of practical knowledge. His post-mortem rooms, wards of the infirmary and workhouse were always open to medical men, and in those old and sleepy days of professional inertia, he was not slow in seeing what would in time bring forth fruit. I may be permitted to say that in August, 1842, a youth of 18 years, of fair and slender build, was admitted into the Infirmary, and for want of a bed in the medical wards he was sent to the surgical ward till a place could be provided for him. On examination I found that he had a very severe attack of malignant scarlet fever, and so hot and parched was his skin that I thought it must be something quite unusual, and with that impression on my mind I determined to see how the case would terminate, and began by taking the temperature of the body (106°). I need not say that

clinical thermometers were not then in vogue, nor in use, as a means of diagnosis. He kindly cautioned me against the risk of contagion; but when he saw that I was engaged with his room-thermometer, he went into the matter as earnestly as I had begun, and when I gave him my crude and ready views of the subject he readily embraced them, and the next few days we were devising all sorts of plans for a grand course of researches on the temperature of healthy and diseased conditions of those that we had to treat. We, after some consideration, devised that we would make three series of observations—(1) physiological, (2) pathological, (3) chronic cases, the usual residents of such establishments. Such was our determination, and then our troubles began as regards the kind of thermometer to be used. After numerous trials, mishaps from crying babies and restless children, we had them made by Negretti and Zambra, and we set to work upon the above plan, beginning from the nursery, mother and child, about 14 days old, and carrying it up to the infants', boys', and girls' school, to about seven years of age, finishing up with our first series. We made conjointly 700 observations, consisting of temperature in two places, pulse, respirations, and all other states of the individual, which we called the general state or condition. All these were done in spare time, and a most careful registry made of every case. We did not do very much in our other series, for our time did not permit; one of the cases Dr. Boyd has published, and no later than last July 9th, 1882—the last day that I spent with him—he put the report of the case before me. I left the Infirmary soon after these cases were finished, and I believe he did not proceed with the research. On his coming to London from Somerset he renewed the request that we should finish up the matter, but want of time and other matters prevented me from doing so, and I considered that our crude and imperfect set of experiments were not in accordance with the scientific instruments now in use. I did not see that our labours would be appreciated. He did not see that the present system of thermometers, made specially for the purpose of clinical observation, would clash with our imperfect beginnings. If time had not been in the way, on my part, I should have gladly helped in the second part of the matter, namely, the condition of health, &c. of 700 children, from birth up to seven or eight years, in an over-crowded workhouse under the most unfavourable hygienic conditions. This I could have carried out well, for he gave me the entire management of the three grades of schools in the establishment, so that the record

would have been most correct. I fear these papers are consumed, unless he may have left them in the archives of the Marylebone Infirmary. Such is a short and imperfect account of the doings of an earnest and hard-worker in the profession. I, the last of his pupils, and, I believe, the last but one of his numerous colleagues, have only to lament the loss of my first patron and my first friend, from whom I always received ready support, and many kind proofs of his interest in my welfare. His conduct through life deserved the hearty commendation of all those with whom he had to do. One word more. I, who have done so much work with him, and know so much about his quiet professional ways and views, so far as it is possible for one person to know another, must say that it reflects no great credit on the disposers of State benefits, who do not appear to be guided in their appointments by the fitness of the individual, that he should not have been long ago put into a place which he could have filled with advantage to those for whom he had laboured so long and so arduously. This would have been a fitting place for him, and would have suited the bent of his inclinations, which were studious and official, rather than those of the ready man of the world. With this I conclude a hurried note of a man with whom I so much regret, I shall never have the pleasure of recurring to those old times which he always delighted to talk over with me."

In the capacity of Medical Superintendent of the Somerset Asylum for twenty years, from its opening in 1848, he was beloved by the patients and officers of the asylum, and implicitly trusted by the Committee, the management of the institution being very successful. He opposed lavish expenditure, and we have heard him lament that so extravagant a sum should have been spent upon the asylum chapel after he left.

In their 20th Annual Report the Committee thus refer to Dr. Boyd's resignation :—"The Committee will part with him under the recollection of twenty years of uninterrupted harmony and entire confidence, during which they have observed his thoughtful care of the patients and for the improvement and enlargement of the asylum, whereby the county property has been much increased in value, while the expenditure has been kept below the average of other asylums."

Dr. Boyd was an unobtrusive man, and it was sometimes difficult to induce him to express his opinions in public even on subjects upon which he was well qualified to speak. This was not in consequence of his holding his own opinions lightly. He had very decided views, as, for instance, in regard to the

treatment of lunatics in our large county asylums. In visiting him very shortly before his death, the conversation turned on the recoveries of insane patients when he was a young man and at the present time. He stoutly maintained that Lord Ashley's Act of 1845 had proved a curse instead of a blessing, and that the percentage of cures had declined in consequence.

In the melancholy death of Dr. Boyd, our specialty has lost an admirable example of devotion to the arduous work of his profession; and his career has shown, once more, the possibility of pursuing to an advanced period of life, with unabated interest, if with diminished vigor, the investigations undertaken in early manhood.

To the surviving members of his family we offer our profound sympathy, and doubt not that at the next quarterly meeting of the Association—if not before—the feelings of the members will be embodied in an appropriate resolution, followed, we should hope, by some lasting memorial to one who was beloved in life and lamented in death.

PART II.—REVIEWS.

Les Hystériques. État Physique et État Mental. Actes Insolites, Délectueux et Criminels. Par Dr. Legrand Du Saulle. 1883.

It is an easy and pleasant task to review a book in which there are few, if any, faults to expose, but where all that is said is in the way of praise and commendation. Such, on the whole, is the case in the present instance. This large book, of more than 600 pages, records the experience and observation of 30 years, and it is not surprising that Dr. Du Saulle expresses considerable satisfaction at the great advance of knowledge which has occurred in that time. He must remember very well the hopeless ignorance of the profession in former years as to the true nature of hysteria, and it has been largely through the work of French physicians, notably M. Charcot and M. Richer, and now through Dr. Du Saulle, that this ignorance has in great measure been dissipated, and that we now possess some rational ideas as to the disease. He by no means would suggest that we have yet learned all that can be discovered as to its nature, but he believes that we are now on the right track, and that by perseverance in our present methods of re-

search we may hope to disentangle the phenomena which have for ages puzzled the profession.

The book is a perfect mine of clinical work; anyone working at the same subject can scarcely fail to find here the record of a case somewhat resembling any other that might come under observation. So true, indeed, is this that Dr. Du Saulle is quite justified when he says: "Although in any future time a hysterical woman should exhibit functional disorders surpassing the previsions of physiology and pathology; though she sleep an indefinite time; though her sensibility be increased, diminished, or extinct; though her personality be doubled; though her memory suddenly cease; though she be addicted to eccentricities which frighten, deceive or excite the compassion of the most careful and least credulous men; though she give way to the most inexplicable vagaries; though she be, if you like, a sort of sham, indecipherable sphynx, yet she will find her twin sister in the gallery which I now exhibit."

Besides the eight chapters into which the book is divided, there is an appendix which discusses nymphomania. The author has made this addition in order that the two diseases may be compared and their essential differences demonstrated. By a generally credited and most mischievous error, hysterical patients are generally believed to possess tendencies and habits which cause them to be worse thought of than they really merit. Hysterical women are sufficiently badly regarded without unfounded prejudices reducing them lower than they deserve; and it cannot be doubted that the belief that they are all immoral in thought, word or deed, has mightily influenced the profession against them. These unfortunate women have suffered much cruel treatment, unintentionally cruel no doubt, at the hands of physicians in days gone by. They were literally tortured by nauseous medicines being so administered that the taste was never out of their mouths; and when, unable longer to endure such treatment, they declared themselves well or ran away, they were denounced as impostors and cheats, deserving only the tread-wheel and the whip. Dr. Du Saulle is right when he fears that a long time must elapse before such patients are treated with due consideration, and their state and conduct correctly understood.

It cannot be said that hysteria is a disease generally misunderstood because of the rarity of cases in which it can be studied. Can it be believed that it is estimated that in Paris alone there are 50,000 hysterical women, of whom 10,000 have attacks? Yet Dr. Du Saulle says so.

In an exhaustive treatise of this kind, where knowledge is brought up to the day of publication, it is really unnecessary to recapitulate the various expressions of opinion, and to indicate the methods of treatment advanced. To do so would be to give an epitome of the work. But we may say that to all men engaged in the study of nervous and mental diseases, the whole book is of the highest interest and importance. In the third chapter we have discussed some of the most interesting phenomena of life, the manifestations of hypnotism in hysterical women. These phenomena are almost incredible. Although they have been studied but a very short time, the results are great and the prospects immense. Hysteria will not have been an unmixed evil to humanity, if through it we succeed in unravelling some of the most difficult problems of nervous action.

The portions most interesting to asylum physicians are undoubtedly chapters 4, 5 and 6, but the others may be read by them with great profit; indeed, must be read by them if they pretend to the character of scientific physicians and not that of mere specialists. In county asylums it is rare to admit a genuine, well-marked case of hysterical insanity, but when received it is deserving of the closest attention and study. In an asylum almost exclusive attention is paid to the mental symptoms, whilst in a general hospital they are not adequately appreciated or observed—greatly to the loss of the physician, who at best gains but an imperfect idea of perhaps the most interesting disease which can come under his notice.

We are accustomed to talk of hysteria—what is it? Who has defined it? It is not exclusively a cerebral disease; neither is it purely spinal, but a combination of the two. We may safely say that it consists physiologically in a diminution of certain of the cerebral faculties (will), having as a correlative or parallel effect the exaggeration of other faculties (affective), and approaching the rupture of equilibrium which normally exists between the cerebral and spinal functions. We have to do with, we may say, a *cerebro-spinal ataxy* (Jaccoud), or adopting an expression quite recently proposed by M. Huchard —a *neurataxy*. But we must not forget that hysteria has never been defined, and probably never will be.

The Medico-legal aspect of the disease receives exhaustive treatment at the hands of Dr. Du Saulle. The cases illustrate every form of perversity and wickedness, and convey one solemn lesson at least, viz., that any statement made by hysterical women affecting the character of men should be received

with great caution, and abundantly confirmed before received as true. It is heart-rending to read the accounts of perfectly innocent men being imprisoned during many years, the victims of hysterical women, who seemed possessed of an ingenuity perfectly devilish. We are reminded by these cases of a remark by Serjeant Ballantine, in his "Recollections," to the effect that he never knew of innocent persons being condemned to punishment except in such cases as we have referred to. Members of our own profession and clergymen are peculiarly liable to such accusations, and they run great risks of condemnation if the woman be good-looking and affectedly-modest. Juries are notoriously subject to such influences, and even judges do not appear to be proof against the wiles of the wicked ones.

In concluding this imperfect notice of a very good book, we would desire to make amends for our own shortcomings by praising Dr. Du Saulle's work. It is the best treatise on the subject in any language so far as we know; it should be in the possession of all asylum physicians, and of those interested in the scientific investigation of nervous diseases. We can assure anyone who will read it carefully that he will be greatly interested, and that his knowledge of hysteria cannot fail to be much expanded and brought up to date.

T. W. McD.

A Regiâo Psychomotriz. Apontamentos para contribuir ao estudo da sua Anatomia. Por Antonio de Sousa Magalhães e Lemos. Porto: 1882.

The Psychomotor Region. Remarks on the Study of its Anatomy. By Antonio de Sousa Magalhães e Lemos. Oporto: 1882.

This work is at least evidence that Portugal is not without her earnest workers in science; and it is with pleasure we find that the author is not only acquainted with the writings of foreign neurologists, English, French, and German, but has himself investigated the anatomy and the functions of the nervous system from various points of view. The work before us is an inaugural dissertation with some additions. It deals almost wholly with the intimate structure of the motor portion of the cortex, and of the motor tract connected therewith; and it is illustrated by some very good original wood-cuts.

The subject is examined under three aspects. It is successively viewed in the light of the facts of development, of pathology, and of comparative anatomy. The one conclusion to which all these lines of study converge is this: that the motor regions of the brain are characterised histologically by giant cells, either pyramidal (cerebral type) or rounded (medullar type).

Some experiments on the electrical excitation of the cortex are recorded in an appendix.

It may not be out of place to remark that Dr. Herbert Major and also Bevan Lewis and H. Clarke are frequently quoted; as a rule, with warm approval, but sometimes with critical dissent.

In conclusion, we may say that this work would seem to indicate a spread, rather than an advance, of neurological research. Nevertheless, as a spread of knowledge forecasts an advance, the book deserves a cordial welcome.

W. R. H.

Insanity; Its Causes and Prevention. By Henry Putnam Stearns, M.D. New York: 1882.

This is a book containing much practical counsel, the outcome of the author's experience as Superintendent of the Hartford Retreat (Conn.), and elsewhere. Dr. Stearns is satisfied that there is an actual as well as an apparent increase of insanity. Unfortunately he cannot contribute any fresh statistics towards the determination of the question. He only gives figures obtained from the British Lunacy Blue Books, because we have greater facilities for accurately determining the number of insane persons living at any one time than is possible in the United States. It would have been interesting to the English reader of Dr. Stearns's book, to know whatever can be known of the numbers of the insane in the different States, so as to form something like an approximate estimate of the proportion of lunatics to the general population. The author has no doubt that when the statistics of the insane in the United States for 1880 have been published, they will strongly confirm the conclusion which he draws from our own Blue Books. Among the causes for the increase of mental disease, he dwells much upon the difference between present and past times in regard to fresh air. "The thousands who are in the present immersed in the dense atmosphere of cities, large towns, manufacturing

establishments and mines of various kinds, were accustomed in former times to live largely out of doors, and were engaged in such pursuits as tended to develope and strengthen the whole system" (p. 14). On the other hand Dr. Stearns very properly points out that the very extensive emigration of able-bodied men from Britain during recent years, must leave the proportion of the weakly and insane to the population higher than it otherwise would have been without a corresponding actual increase of insanity. This is true; at the same time it must not be overlooked that a considerable number of emigrants leave their native shores because poverty stares them in the face, and would, in some instances, be likely to find their home eventually in an asylum. In all these considerations the grand difficulty is to gauge the contending or opposing factors accurately, and, therefore, when our author employs the expression "having made due allowance for this and other considerations," the reader must be warned that neither Dr. Stearns nor anybody else is able to ascertain what allowance ought really to be considered as "due." We fear that so long as the conclusion arrived at in regard to the increase of mental disorders must be largely influenced by the personal equation of the inquirer, so long will wide differences of opinion obtain on the subject—varying possibly from the belief in the alarming spread of insanity under modern civilization, to the denial of any increase at all. It is simply impossible to reduce the various considerations in question to figures; they refuse to be appraised like so much furniture or farm stock by the valuer. Vital statistics proudly defy our laudable attempts to compress them within the columns of tables; but for all that we must continue to tabulate, and, in truth, with the greater care and accuracy. It is no excuse for shirking them. Summing up the relation between civilization and the liability to insanity, we believe it is but too true that as the author says, "in the degree in which nations have passed from those conditions which pertain to life in the savage state, upward towards those which abound in civilized life, in that measure has the sum total of diseased conditions, in both body and mind, increased; in this measure have there resulted degenerations of nerve element, and consequent failure to attain to and live in harmony with those artificial arrangements and conditions with which society in the civil state has thus far in its history uniformly surrounded itself"(p. 37).

Dr. Stearns vigorously denounces the present preposterous

excess of education of our boys and girls, and we endorse all he says. Whether medical protests will avail aught we do not know. We rather fear that the masters and examiners of schools will reply, "Physician, heal thyself," seeing that the English medical curriculum and the practices of the examiners in our own profession are just as absurd and wilfully mischievous as those of other people. They cannot expect their advice to be followed when they deliberately break every principle of cerebral physiology themselves. We are at one with the author when he says there are two great points to aim at in order to lessen the present crying evil, viz., "a larger measure of *individuality*, smaller schools and fewer pupils for each teacher, that each may have more special assistance and *special* training; and secondly, *a less number of subjects of study*. Let there be fewer subjects studied and let what is studied be more thoroughly mastered. Have fewer half-understood problems and half-remembered lessons, and I believe we shall have more stable brains and stronger intellects in after-life" (p. 92).

Much stress is laid upon the importance and utility of industrial labour, and it is very truly observed that the lack of this kind of employment tends to produce too much self-distrust and introspection.

Moral education is not overlooked by Dr. Stearns. A child must acquire self-control and self-denial, but now-a-days the danger consists in letting him have his own way and gratifying every wish. To repress by too stern an education is alike cruel and mischievous; but no less true, perhaps more true, is it that the freedom of youth, which is now permitted and encouraged, is in danger, as the writer says, of degenerating into mere license. Parental respect, the authority of school and of State, thus become disregarded, and indeed despised. The warning note must be obedience, not license.

Dr. Stearns, when speaking of heredity, remarks that the day will come when the first question asked in the education of a child will be as to its inheritance. This is all very well, but we shall find that the educator must, after all, study the child's own character rather than that of his progenitors. He may follow after his paternal or his maternal ancestors; he may resemble neither. Without for a moment calling in question the importance of this aspect of the subject, we would observe that although after a careful study of ancestral proclivities, we may know something of the original elements

which went to form the character, we are sadly out when we attempt to forecast the compound. A dwarf may have had parents remarkable for their physical endowments, as we have known to be the case. Dr. Stearns points out five obvious groups of children, and he might have added more. These are the Precocious; the Passionate and Cruel; the Timid; the Wilful; and the Lonely; and it is no doubt very desirable that the parent and educator should be alive to these different forms. Passing over "Consanguineous Marriages" and "Alcohol" (from which he counsels all parents as well as the young to abstain) we observe that the writer takes a serious view of the influence of tobacco as a predisposing cause of insanity. He is inclined to regard the excessive use of this favourite weed as inducing in the offspring "a lower grade of intellectual and moral character, though to a less extent than alcohol" (p. 183).

Our space does not allow us to follow the author in his reflections upon the influences of Sex, Poverty, Religion, and Insufficient Sleep, in disordering the mental functions. His observations close in recommending that on all State Boards of Health there should be one or more physicians appointed "whose duty it would be to ascertain and make public, reports upon the prevalence of such conditions as conduce to the production of mental disease" (p. 248). This might be very desirable if we could ensure suitable appointments. Perhaps they can in America.

Experimentelle und Kritische Untersuchungen zur Electrotherapie des Gehirns insbesonders über die Wirkungen der Galvanisation des Kopfes. Von Dr. Löwenfeld. München: 1881.

Ueber die Behandlung von Gehirn und Rückenmarks Krankheiten vermittelst des Inductionsstromes. Von Dr. L. Löwenfeld. München: 1881.

Behandlung der Psychosen mit Elektricität. Von Dr. Tigges, in Sachsenberg (Zeitschrift für Psychiatrie, xxxiv., Band, 6 Heft.)

The study of these productions affords a favourable opportunity for the consideration of the treatment of diseases of the brain and nervous system, and electricity.

Whilst Dr. Tigges goes no farther than to record his

own experience, Dr. Löwenfeld's pamphlet of 138 pages takes the form of a comprehensive treatise on the physiological and therapeutic effects of electricity upon diseases of the nervous system, with 242 citations from the literature of the subject in German, French, English, and Italian. We have all the diligence and thoroughness characteristic of the German scientific observer, and, what is also too often characteristic, the neglect of the art of writing. In Dr. Löwenfeld's pamphlet there is a want of grace and point; and though it is full of repetitions, the sense is often obscure.

In the German Retrospect of this Journal (April, 1874), in giving a resumé of Dr. Tigges' communication on "Cases of Giddiness with Double Vision and their Treatment with the Constant Current," we ventured to complain of the want of clearness in the style of this able experimenter, and the difficulty of guessing at his abbreviations. In the present article Dr. Tigges gives some definitions of his principal abbreviations and symbols which the reader must learn by heart in order to wade through a paper of 41 pages. His difficulties are not then over. A profusion of remarks carelessly worded are heaped one on the other, and sometimes needlessly repeated. Apparently Dr. Tigges has even grudged the labour of correcting his proof sheets. Nevertheless the paper is valuable on account of the numerous observations it contains, which seem to have been made with care.

Dr. Löwenfeld's own experience in electro-therapeutics seems to be extensive. He has repeated many former experiments and originated new ones. Unhappily, in spite of hard work and many careful observations, the conclusions are undecided, not to say discordant; and the juxtaposition of varying views on many points only serves to show that the subject has not passed out of the stage of experiment and debate. There is plenty of guess-work, merely empirical observations, and contradictory assertions. It is, therefore, extremely difficult to give the pith of these papers. Their importance seems in great part to consist in the hopes they hold out of the influence upon disease of that mysterious fluid whose presence is everywhere in nature; but whose method of action is so difficult to follow, describe, and formulate. For some years back most of the great scientific discoveries and inventions have been made by tentative ex-

plorations in the domain of electricity. One step has often been attended with most unexpected results, and as our area of investigation, and the fineness of adaptation of our instruments for experiments are always increasing, it may be hoped that our methods will become less empirical, and our success more decided. As Dr. Löwenfeld remarks, it ought to encourage us when we recall that little more than ten years ago it was held as one of the best founded data in physiology that the hemispheres of the brain were not excitable either by an electric or any other artificial stimulus. And now how much of our knowledge of its functions is dependent upon the opposite of this exploded proposition! Assuming it as proved that we can pass the constant or galvanic current through the brain or any other part of the nervous system, it is scarcely needful to remark that so powerful an agent should be used with great caution.

Dr. Löwenfeld observes that the electrician should be especially careful with very nervous patients and with women and children; but the regulation of the current by a rheocord is not needed. Flashes of light before the eyes, and swimming of the head are indications that the current cannot be increased without danger. The giddiness is more easily induced by transmitting the stream from one side of the head to another than in the longitudinal direction. The passage of the continued current through the brain is sometimes attended by sounds in the ears and a metallic taste in the mouth. Nystagmus has been also observed. Where sickness occurs it is supposed to be owing to the current having reached the centre for the act of vomiting, which Schiff places in the medulla oblongata. As regards the length of the sitting, Dr. Löwenfeld quotes twelve physicians, the first of whom would only allow one half minute for the duration of a current passed through the brain, and the last thinks there is no danger in letting the process go on for half an hour! He himself thinks that if the current be prolonged from three to six minutes, favourable effects are likely to be changed into unfavourable ones, and that widening of the vessels may succeed to the initial contraction. But in many cases it is not our object either to increase or diminish the amount of blood in the brain. Dr. Tigges says that the varying action of the two poles, which in a physiological point of view is so marked, does not appear as a therapeutic result. But to this general rule there are a few exceptions:

sometimes one pole has a more favourable effect than another. In a few cases of sounds in the ears and of ptyalism, the anode, or positive pole had a soothing influence, while the kathode had an exciting influence; in most cases this difference was not observed. Nevertheless, from some facts stated by Löwenfeld and others, it seems likely that the question whether, and in what cases, an ascending or descending current should be chosen is one which demands further attention. Some of the authors quoted think that the positive pole should be applied to the head and the negative to the neck; others recommend the reverse proceeding. Some consider it indifferent whether the current be an ascending or a descending one; but there are grounds for believing that the effects are modified by a change in the application of the electrode, though the varying results have not been studied with sufficient care to be exactly formulated. Althaus mentions a case of hemiplegia in which the patient, after the application of the descending stream, the positive pole to the brow, the negative to the neck, had a feeling of lightness as if he could fly, while there was an unpleasant fulness and heaviness in the head after the ascending stream. Onimus and Legros made an opening in the skull of a dog, and found that by applying the positive pole to the superior cervical ganglion of the sympathetic the vessels contracted and the brain shrank, while on the poles being reversed, there was observed injection of the cerebral capillaries with bulging of the brain through the opening.

Löwenfeld himself is inclined to believe that when the tendency is toward hyperæmia the descending current is indicated, and where it seems an object to increase the afflux of blood to the brain that the ascending current should be used.

Löwenfeld has made a large number of experiments upon animals in order to ascertain the physiological effects of electric currents upon the brain. The results were not always constant, electricity keeping up its somewhat variable and fitful character. Its effects on the brain are in many respects obscure or unknown. During the passage of electric currents through the brain thought seems unaffected, and the will retains its power. What chemical and nutritive changes take place are still unknown. Löwenfeld thinks that Onimus and Legros were rash in coming to the conclusion already

mentioned from a single experiment; but the general course of his own observations do not lead him to disagree with the French physiologists. He observed the effect of electricity on the brain of animals whose skull had been opened by the trephine, and arrived at the conclusion that it is possible through the conduction of the constant as well as of the interrupted current, to influence the circulation within the cranium. The influence of electric currents upon the circulation of the brain was not equally great in all the experiments. When there was a change of calibre in the arteries during the circuit, the change lasted after the circuit was opened. He found that the ascending current caused the arteries of the brain to dilate, and that the descending current caused them to contract; but the results were not so uniform as one might have expected. In other words, the anode causes widening of the cerebral arteries of the side on which it is applied, and the kathode causes contraction of the arteries. In some cases he found that the interrupted current caused injection of the pia mater where the constant current failed to produce any visible alteration. A powerful interrupted current applied to the peripheral parts of the body increases the injection of the membranes.

In his observations upon the human subject, Löwenfeld remarked that vertigo following the passage of the continued current through the brain is not so easily induced in patients exhausted by sleeplessness or excitement. He found the excitability of the peripheral nerves not increased by electricity; and he argues with Schiel that the normal strength of the arm is not diminished during the passing of an electric current through the head. He observed turning of the head towards the anode in a child of six months sleeping in his mother's lap.

Some writers treat the direction of the electrical current as indifferent; others can assign no clear reason for the direction they give to the stream. Benedict places the anode on the neck and the kathode on the brow on the right or left side according to the site of the lesion.

Dr. Löwenfeld thinks it of importance, in circumscribed lesions of the brain, to apply one pole to the site of disease and the other to the neck, so that the current may pass through the vaso-motor centres in the medulla oblongata. Whether the current should be passed through the brain in a longitudinal or transverse direction ought to be determined

by the situation of the disease. If the lesion be in the frontal lobes, apply one pole to the temple; if in the posterior fossæ, apply an electrode to each mastoid process. Where it seems an object to diminish the circulation of the right hemisphere, the kathode may be applied to the right side of the head; where it seems an object to increase the circulation, the anode may be applied, and *vice versâ*.

Various explanations have been given of the therapeutic action expected or observed to follow the action of the electric current upon the nervous centres. It is believed to influence the calibre of the vessels through the sympathetic nerves which follow them into the encephalon, to set in motion trophical changes, and to cause the absorption of abnormal exudations. Under the influence of such views different methods of procedure are recommended.

Eighty years ago Aldini claimed to have effected a cure in two cases of melancholia by passing the galvanic current through the brain; but our appreciation of the therapeutic effects of this agent is still of an uncertain character. Its effects are variable and capricious; sometimes the result is very striking; sometimes disappointing. The immediate therapeutic effects, according to Löwenfeld, are mitigation of pain, relief from the sensation of tightness or weight in the head, improvement of speech and general paralysis (Hitzig and Schüle), improvement in aphonia (Emminghaus), in hysteria and in paralysis of the limbs following hæmorrhage of the brain (Benedict). The secondary effects of galvanisation of the head are stated to be better marked in the less grave diseases and anomalies of nutrition, especially in neurasthenia, habitual headache, hemicrania, chorea, the slighter forms of mental derangement, and melancholia. Favourable results are said to have been obtained in hæmorrhage of the brain, embolisms of the cerebral arteries, general paralysis, progressive paralysis from disease of the medulla, syphilitic disease of the brain, and neuralgic and other diseases of the cranial nerves. The improvement in cerebral hæmorrhage was not confined to the paralytic symptoms alone. Though he has made use of electricity with a large number of patients, Dr. Löwenfeld never met with decidedly unfavourable effects following its application. Other remedies were generally used along with electricity, and this makes him less certain as to its real therapeutic powers.

Dr. Löwenfeld, at the end of his pamphlet, remarks that

the great majority of those who practice electro-therapeutics hold that the induced current is not adapted for applications to the head intended to reach the brain. It has been stated that it was not possible to pass the faradic current through the brain, and that it did not possess the power of influencing the nutrition of deep-lying parts. This view was strengthened by the observation that its employment was rarely followed by flashes of light, giddiness, and other symptoms of irritation which sometimes follow the application of even a weak constant current. These arguments, he says, are not now tenable, since Erb has shown that induced currents traverse the brain as well as those of the constant current.

Dr. Löwenfeld's own experiments prove that the circulation within the cranium can be influenced by the application of the interrupted current. "Like Erb and Benedict," he writes, "I have been able to convince myself that the interrupted current, especially transmitted through the moistened hand laid on the head, can produce great relief in intense headaches." He quotes the observation of other well-known physicians on the favourable results of the interrupted current in neuralgia and sleeplessness.

Dr. Löwenfeld's smaller pamphlet is devoted to the therapeutic effects of the interrupted current in nervous diseases. He has found great benefit in a few cases of spinal disease in the application of the interrupted current to the back, especially where the disorder seems to be merely functional. He thinks that the remarkable effects following on general faradisation as claimed by Beard, Rockwell, and others, are in part owing to the current passing through the head. The general procedure is to apply the one electrode to the feet or gluteal region, while the other pole is successively placed on the head, trunk, or extremities. In the treatment of the insane he recommends the use of peripheral faradisation with strong currents passing through the trunk and extremities, but would apply weaker currents through the head, continued from ten to fifteen minutes through the wet hands or with moistened electrodes. He himself has seen great advantage from general faradisation in cases where there was no deep-seated organic lesion, in hemicrania and sleeplessness, neurasthenia, chlorosis, hysteria, hypochondria, and other diseases of the same type not dependent upon an organic lesion.

In one of the cases given by Löwenfeld, there had been for several months headache, often with confusion in the head, incapacity for mental exertion and a rapid sense of weariness especially in calculating with figures. There was weakness in the back and legs, so that the patient, a man of thirty-eight, was tired by a short walk. There were pains in the loins, descending to the legs; the appetite was bad; the bowels constipated; and there was a feeling of tightness and uneasiness in the abdomen, especially at meals, with tenderness felt on pressure at the epigastrum; poet coitum lassitudo gravis per dies nonnullos, propter hoc a muliere abstinentice erectionibus et inquite nocturna recuta. These symptoms were accompanied by great mental depression. After three weeks' treatment and general faradisation there was an enduring improvement in all the symptoms. In the course of a few months, during which faradisation was employed in a somewhat intermittent manner, the patient completely recovered his health.

Engelhorn treated in this way a case of hysterical insanity and another of hysterical melancholia. In both patients there was deep exhaustion of the nervous system and loss of the power of digestion. They both improved after the first use of general faradisation, and sleep and digestive power returned. Against the Protean symptoms of neurasthenia, Löwenfeld considers that general faradisation is the treatment *par excellence.* He has found the constant current also useful, but somewhat slower in its action. He refers to the work of Beard as to the proper way of managing the electrical current. After discussing the modern medendi suggested by the American physicians, he observes that not only is the nervous system directly acted on, but that there is a reaction from the stimulating effect of the current upon cutaneous nerves, and the involuntary and voluntary muscles. He considers the action upon the superficial nerves to be of the greatest importance.

Dr. Tigges gives an analysis of the effects of electricity upon several symptoms met with in the patients of a lunatic asylum. He endeavoured to act upon the sympathetic system by applying the pole of the galvanic battery to one or other of the sympathetic ganglia of the neck, the other pole being placed near the continuation of the sympathetic nerves, or laid upon the transverse processes of the cervical vertebræ, or on the arm, or one electrode was placed on the

first ganglion of the sympathetic of the neck, and the other electrode behind the occiput. By this treatment, intended, we may suppose, to act upon the vaso-motor nerves, pains in the head, neck, back, chest, and arms were relieved; the apathy of the patient was lessened, and humming in the ears made to cease. Sometimes the passage of the current was attended with sensations of heat or shuddering, or there was tenderness over the region of the trunk or ganglia of the sympathetic. The motor symptoms observed in various cases were shuddering, and clonic and tonic spasms. On passing the current with one electrode in front of the ear the head was jerked from side to side; on laying the electrode on the mastoid process there followed in one case chattering of the teeth and trembling of the left arm. In one patient, after three weeks' treatment with the electric current of moderate strength, there supervened epileptiform fits without loss of consciousness, opisthotonus, emprosthotonus, and treading with the feet. An attack of this kind was renewed on the application of the current, and on ceasing the electricity the fits returned no more. In some cases the face was observed to turn pale; in others it became suffused with perspiration. In cases of melancholy with apathy or stupor, Dr. Tigges notes that after the constant as well as the interrupted current he found the pulse fuller and more frequent, the face pale, and the pupils generally more dilated, rarely contracted. The passage of the constant current through the nervous centres evidently disposed to sleep. The patients generally slept better after the applications; one of them could scarcely keep from falling asleep during the sitting. The constant current had in one case a better hypnotic effect than injections of morphia. Giddiness was found to derive benefit from the electrical method of treatment; sense of oppression in the head was found to be relieved by currents passed through the organ or applied to the sympathetic nerves, or to the neck and back. Feelings of heat, lightness in the head or constriction in the body or limbs, with flushings in the face, were found to derive benefit from the constant and also from the interrupted current. Tender spots at different parts of the body as well as on the head were successfully treated by the applications of electrodes to the place. The uneasy sensations of whatever character were apt to return; but through persevering treatment enduring improvement was obtained

in many instances. The effect of electricity was tried on ptyalism. The constant current passed so as to act upon the sympathetic of the neck, or on the parotid gland, had a favourable influence; but did not in any instance cause permanent improvement. Once tried it in a case of excessive salivation in an imbecile lad who had been epileptic. It was found easy to stop the flow of the saliva by laying the one electrode on the parotid, the other on the submaxillary gland; but when the current was withdrawn the flow of saliva again began.

Especially interesting is Tigges' treatment of auditory hallucinations by the constant current. He gives a short account of thirteen cases in which there were sounds in the ear, and in some instances hallucinations of hearing without organic disease. The electrodes were applied in a variety of ways. Sometimes the one pole was brought in contact with the parts about the ear, either in front or behind, on the mastoid process, the other electrode apparently being applied to the neck; or the anode was put on the forehead and the kathode below the occiput; or the anode was put on the neck and the kathode on the upper dorsal vertebræ. Another arrangement was to lay the anode over the situation of the third ganglion of the sympathetic, *i.e.*, between the trachea and the sternal attachment of the sterno-mastoid muscle, the kathode being put under the angle of the inferior maxilla; or the poles were reversed. What he calls the local treatment, was to insert one electrode into the auditory foramen, which was filled with water, or to make the pole to rest upon the tragus while the other pole was applied to the neck. In a few cases the anode was found to have a soothing effect; the kathode, an exciting one, increasing the sounds in the ear. In one patient the subjective sounds thus aggravated lasted an hour after the sitting; but as a general rule no difference was noticed in the effects of the two poles.

We hope to return to these important researches in a future number. It only remains for us now to express our appreciation of the patience and ingenuity with which they are being pursued, and our hope that they will prove of lasting service in the treatment of the insane.

PART III.—PSYCHOLOGICAL RETROSPECT.

1. *German Retrospect.*

By W. W. Ireland, M.D.

Relation of Diseases of Women to Insanity.

Dr. Ripping, in the "Zeitschrift für Psychiatrie (Band xxxix., Heft 1), considers the important clinical question of the relation of the diseases of the sexual organs in women to mental alienation. While he admits that changes in the uterus and its appendages, whether physiological or pathological, have an effect upon the mental susceptibilities of women, he is doubtful whether this effect is profound enough to become a potent cause of insanity. He is rather disposed to place such affections in the second or third line of causes as adjuvantia. The uterine diseases and the mental disturbance are sometimes the result of a common cause. "I have never observed," writes Dr. Ripping, "a single case in which the insanity was a pure reflex neurosis of disease of the genital organs." If in some patients this seemed to be probable, it was found on more careful examination that there were other circumstances which gave an easy and unforced explanation of the mental derangement. It is only after uterine disorders which, from their severity, implicate the whole organism, or lower the strength, as in continued bleedings, that insanity can be held to supervene as a result.

Dr. Ripping finds that affections of the sexual organs, after the puerperal condition is passed, do not hinder recovery from insanity. He protests against the remark of Skene that the insane are less affected than the sane by vaginal examinations. On the contrary, he says that, in recent cases of insanity, such examinations sometimes cause injury to the course of the mental symptoms which are well-nigh irreparable. He has a dislike to examinations under anæsthetics, and observes that the effects of chloroform on the nervous system are somewhat suspicious in patients afflicted with recent insanity.

There is a great variance of opinion about the frequency of diseases of the genital organs in insane women. Verga places it as low as 6 per cent., L. Meyer 9 per cent., Landouzy makes it 50, and Hergt as high as 66 per cent. Dr. Danillo, of St. Petersburg (Centralblatt für Nervenheilkunde, 1 Juni, 1882), has recently examined the question; and of 200 insane patients he found diseases of the genital organs in 80 per cent.; and out of 140 women who still menstruated, he found 120 = 84 per cent. who had some affection of the uterus or its appendages. In 60 who did not menstruate, he found only 18 = 28 per cent. so affected. Dr. Danillo therefore comes to conclusions quite opposed to those of Dr. Ripping.

Alterations in the Nervous Centres from Ergotism.

Dr. Franz Tuczek gives us ("Archiv," Band xiii., Heft 1) some further information about the epidemic of ergotism which visited the circle of Frankenberg, in Hesse Cassel, in the autumn of 1879, so well described by Dr. Siemens in a previous number of the "Archiv" (see "Psychological Retrospect," October, 1881, p. 429). Dr. Tuczek tells us that since Dr. Siemens finished his paper more cases have entered the hospital. The ergotism did not disappear till all the bad rye was used up. In 1880 there was about from 1 to 2 per cent. of ergot in the crops; but the people, at last convinced of its hurtful qualities, took the trouble to separate the spurred rye, and gave it to their poultry, which caused great mortality amongst the fowls.

Since the autumn of 1880 there have been no new cases in Hesse, but many relapses and sequelæ of the disease; and in March, 1882, there were still in the hospital four patients suffering from the effects of this dreadful malady. Dr. Tuczek remarks that many children were affected with ergotism, but never any infants at the breast. In the epidemic under his observation the nervous symptoms were the most prominent; he had met with no case of gangrene. All the patients were affected with convulsions, and all, without exception, showed symptoms of disease in the posterior column of the spinal cord. This would perhaps have escaped attention had it not been found that the patellar reaction was wanting.

The principal nervous symptoms were ataxia, diminution of sensibility, dulness of perception, giddiness, loss of memory, a feeling of mental incapacity, and dislike to work. The feelings of mental distress often took the form of overburdened consciousness of sin. Sometimes there was melancholia passing to suicide; sometimes there were maniacal symptoms. Death took place in a state of stupor passing into coma.

Dr. Tuczek did not find hallucinations common, although many children were affected by the ergotism who do not make any accurate distinction between their dreams and the observations of their waking moments. He gives the case of a little girl of seven years of age who had eaten of the diseased rye. She had epileptic fits, became very talkative and restless, spoke to everyone whom she saw, told absurd stories, laughed and made faces, was passionate, danced about, wept, and showed other signs of great excitement.

In all the cases epileptic attacks appeared at one time or another, sometimes going before the mental derangement, sometimes accompanying it, and often outlasting it, so that, after the mental alienation had disappeared, typical epilepsy remained.

After the fits involuntary movements of an automatic character were observed in one case; in another anæsthesia of the skin followed; and in a third there was ataxia, which soon disappeared to return after a new epileptic attack.

Dr. Tuczek distinguishes between the primary intoxication caused by ergot and the after effects, evidenced by emaciation, anæmia, low temperature of the body, dislike to food, diarrhœa, and a tendency to skin eruptions, especially furuncles and carbuncles.

Of twenty-eight cases received into the hospital, four died; eight recovered; four are still under treatment, not giving much promise of recovery. Of the remaining twelve, some appeared to be permanently injured in intelligence; and in all the failure of the patellar reaction showed that there still existed some affection of the spinal cord. Dr. Tuczek mentions that while his article was going to press a woman suffering from mental derangement through ergot had lighted a heap of flax near her house by which her child was burned to death.

Of the four patients who died, two are noted to have had the mesenteric glands much enlarged and to have been the seat of tubercular degeneration. Similar deposits were found in the intestines; there were no traces of tubercular deposit in the brains of those examined.

In the brain of a girl of nine years, who died in a state of stupor after repeated epileptic fits, the dura mater was strongly adherent, and there was some fatty degeneration in the middle-sized vessels and their ramifications near the great ganglion cells of the cortex, principally in the upper parietal gyri and about the cornu ammonis. In the other three cases the alterations found in the brains were trifling; but the scrutiny was not prosecuted so diligently as with the four spinal cords, which were examined with great care. In all the knee jerk had been wanting, and the posterior columns were found to be the seat of a degenerative process characterised by hyperplasia and fibrillar metamorphosis of the neuroglia at the cost of the nerve elements. This alteration was confined to the root-zone or columns of Burdach, those of Goll being slightly invaded in one case only. In three of the spinal cords Dr. Tuczek believes that he had lighted on traces of a chronic myelitis, the process being of an interstitial character, though principally affecting the neuroglia. He thinks that we have here an affection of the root-zone, which only differs from the typical tabes dorsalis by its rapid development and the want of contraction of the atrophied tissues. One patient died a few days after the disappearance of the knee jerk; but the alterations found in the root-zone were of a character already chronic, showing that there may be recognisable alterations in the cord before the failure of the patellar reaction. In the cases which recovered, the reaction returned after a considerable time. Dr. Tuczek thinks that as long as the axis cylinder of the nerve fibre remains intact, repair and recovery are possible. In all cases but one the ordinary reflex action of the skin remained, and the excitability of the quadriceps extensor to mechanical irritation was sustained or increased.

The disease which presents the most obvious similarity to ergotism is no doubt pellagra. As the one is caused by degenerated rye,

the other is caused by degenerated or ill-ripened maize. In both cases we have a slow poison mingled with the food, producing a profound constitutional cachexia, shown by weakness, anæmia, emaciation, and diarrhœa. In pellagra, instead of furuncular eruptions, there is a livid erythematous discoloration of the face and hands; in ergotism there is a marked tendency to epileptic attacks; in pellagra to cramps and spasms. In pellagrous insanity hallucinations seem more common; but in both forms there is a pronounced tendency to melancholia and great anxiety of mind, fears of damnation and proclivity to suicide being noticed as prominent symptoms in both. In pellagra symptoms of ataxia and choreiform movements are common. If Dr. Tuczek will consult Dr. Adriani's pamphlet on "Pellagra,"* he will find that amongst the lesions noticed after death, in patients affected by this form of nervous disease, there are adipose liver and fatty degeneration of the walls of the cerebral vessels, and hyperæmic adhesions and opacity of the membranes of the encephalon and spinal cord, serous or sanguinolent effusions under the arachnoid, and degenerative changes in the brain itself. Dr. Adriani also mentions traces of diffused granular myelitis, and says that a characteristic softening of the dorsal portion of the cord, especially of the white substance, has been long ago noticed and described by numerous observers. He also mentions fatty degeneration of the great sympathetic. Apparently in the cases of ergotism the sympathetic was not examined.

Dr. Tuczek recalls several drugs, such as lead and arsenic, which produce inflammation of the spinal cord with ataxia and disorders of sensation. Among the active principles in ergot he mentions sklerotine and trimethylamine. Dr. Tuczek's experiments on animals were not so successful as those of Italian physiologists with pellagrozeina. In some animals he induced bad health and emaciation, but no epileptic fits or diseased condition of the cord.

Poliomyelitis Potatorum.

Dr. Fischer ("Archiv," Band xiii., Heft 1) describes a peculiar disease of the spinal cord met with in drunkards. He gives at great length the clinical history of two cases which bore so great a likeness to one another that he thinks himself warranted in assuming that they belonged to one type with a common physiological lesion. Both the patients were stupid, lazy men, much addicted to drinking wine and beer, and the inordinate use of tobacco, and leading a listless and lazy life. Neither of them had syphilis or any hereditary neurosis. They fell into a condition of nervous weakness especially characterised by atrophy, and diminished power of the voluntary muscles, which were found not to be excitable either by the continuous or by the inter-

* "La Pellagra nella Provincia dell' Umbria" del Dott Roberto Adriani. Perugia, 1880.

rupted currents of electricity. The peculiar reaction had disappeared, and the quadriceps was not affected by mechanical stimulus ; and the usual reflex action from the stimulus to the skin was diminished ; sensibility to heat was not affected. There was marked ataxia, slight paræsthesia, diminution of the sense of touch, and retardation of the conduction of general sensibility. Standing and walking when the eyes were shut were uncertain. There was great hyperæsthesia to touch, a faint pressure causing pain.

There were slight febrile movements, want of appetite, and symptoms of gastritis. The pulse was quick and feeble. There was an absence of pain or feeling of tightness round the body, and no special tenderness to pressure or rigidity of the spine. The pupils were normal. The first patient, a man aged 36 years, completely recovered ; the other, 44 years old, made considerable improvement. In the first case the weakness or paresis of the muscles was more marked, in the second the ataxia. Though both were stupid, inert men, the first was of a much easier disposition, the second patient being disposed to melancholy.

Dr. Fischer remarks upon the existence of extreme hyperæsthesia of the skin with retardation in the time of conduction of general sensibility.

An interesting peculiarity common to these two cases is the impossibility of exciting some muscles by electricity which were still under the control of the will. The extreme sensitiveness of the patients was a bar to the careful investigation of this condition, but it was well ascertained in the muscles of the fingers and thumb. The same thing has been noticed in lead paralysis.

Dr. Fischer thinks that this group of symptoms is connected with inflammation of the spinal cord. He assigns to it the name of Poliomyelitis anterior subacuta.

On a Source of Fallacy in the Knee Phenomenon.

Dr. Westphal (" Archiv," Band xii., Heft 3) warns us against mistaking the reflex action from the skin with that brought out by striking the patellar tendon, and gives an instance where pressure on a fold of skin was mistaken for the real phenomenon. In one instance he could distinguish two reactions, that produced by striking the tendon, and another contraction of the quadriceps following a little after, owing to the reflex action from contact with the cutaneous surface. The Professor is not satisfied with the arguments of Eulenberg that the knee jerk cannot be of a reflex character, because the time of its following the knock is too short for conduction to the spinal cord and back again. He says that other observers have come to other results, and there are grounds of fallacy in these minute calculations of fractions of instants. Observing that the knee phenomenon disappears after the section of the posterior root of the crural nerve, he found

that its disappearance was not hindered by the injection of strychnia, which is believed to increase the muscular tone.

Syphilitic Tabes Dorsalis.

Dr. Benedikt ("Centralblatt für Nervenheilkunde," 15 August, 1881) observes that some people are born with a tendency to certain diseases, or to diseases of certain tissues. Some men are born to become fat, others to have hypertrophy of the connective tissues. He recognizes a syphilitic form of tabes which, however, is rare. This form is characterised by a frequent oscillation of the symptoms, so that complete or well-nigh complete recovery alternates with severe relapses. Instead of the usual kind of pain beginning at the toes and extending upwards, we have pains which may commence at the sciatic nerves, or portions of the skin remain anæsthetic. These cases derive benefit from iodide of potassium and mercury, while the other cases receive harm from anti-syphilitic treatment. There are other cases where syphilis has preceded the locomotor ataxia, which do not assume the syphilitic type. In the ordinary course of tabes Dr. Benedikt uses nitrate of silver, ergot, Chapman's ice bags, Priessnitz's baths and galvanism. He treats the eccentric pains with points de feu.

Connection between Syphilis and Locomotor Ataxia.

Dr. Pusinelli ("Archiv," Band xii., Heft 3) finds that out of 51 cases no syphilis could be made out in 24 = 47 per cent.; but constitutional syphilis was present in 16 cases = 31 per cent. In nine there was chancre without secondary symptoms = 17·6 per cent., and two cases of soft chancre = 4 per cent.

He has come to the conclusion that although tabes dorsalis is not a form or manifestation of syphilitic disease and not improved by anti-syphilitic treatment, nevertheless the constitutional degeneration following upon this form of venereal disease is a powerful predisposing cause.

Dr. E. Rehlen ("Centralblatt für Nervenheilkunde," 31 August, 1882) found syphilis in 22 per cent. of the cases of tabes dorsalis which he studied, and a history of soft chancre in the same proportion. His observations were made on 35 patients.

Loss of Weight after Epileptic Fits.

Our readers have already been made aware of the observations of Dr. Kowalewsky, who, in a paper published in the "Archiv," stated that he had found that there was a noticeable diminution of weight in epileptics after each attack. The subject has been examined by Victor von Olderogge, ("Archiv," Band xii., 3 Heft,) who has found that there is not nearly so great a loss in weight as Dr. Kowalewsky has given out, that some epileptics never lose weight at all, and that

where the loss occurs it is no greater than what often takes place in healthy men in the same space of time.

Four other observers, Dr. G. Kranz, Dr. Schuchard, Dr. Jolly, and Dr. Lehmann have, after carefully examining the question, arrived at the same conclusion. They all roundly deny any special loss of weight after epileptic attacks.

Case of Word Deafness or Sensorial Aphasia ("Centralblatt für Nervenheilkunde," 1 Juni, 1882.)

"The 46-year-old shoemaker S." consulted Dr. Schwabach because for some weeks he had not been able to hear well. Dr. S., finding that it was not an affection of the ear, but of the brain, sent him to Dr. M. Bernhardt, of Berlin, who gives a full description of the case. S. was a strongly built man, who had about two months before fallen down and lost consciousness. This was succeeded by slight paralysis, with some difficulty of speaking, which soon disappeared. Eight days later he sprang suddenly, was very restless, spoke a good deal of nonsense, and seemed to hear badly. It was found that he understood what was written. This state of excitement lasted for two days, ending in a passionate outburst of tears. He now became quiet and thoughtful. No other symptom of moment was noted, save that there was a doubling of the second sound of the heart heard at the apex.

The pulse was small. It was found that he could read and understand what he read. He read aloud out of a newspaper quite correctly to his wife passages which interested him, but could not understand what was said to him. When one asked him his name, in writing, he immediately pronounced it, and wrote it at once. He hears sounds and voices quite well with both ears, but does not understand what is said to him. He himself remarked:—"I hear every sound, but I cannot understand the word, what it properly means." The association between the words spoken by another and the idea was lost; but the association between the written words and the idea still remained. In speaking he occasionally changes the word, putting in wrong letters. He knows the use of objects held before him, but does not always give the proper name to it.

To the question what is this object? he answers:—Messer—a knife (messer); propfenzicher—corkscrew (propfen-zeiger); bürste—bürst (*e* left out); cigarren-spitze—cigar top (cigarren spatz); thermometer, portmonäter.

Generally, however, he names objects correctly. When asked to write "Haus," he wrote "aus"; when asked to write "Schöneberg," he wrote "Schoneberch," but afterwards wrote it properly. When he was made to look steadfastly at the speaker's mouth he understood a few words if pronounced slowly. When English was spoken to him he said that it had a foreign sound. When Dr. Bernhardt sang to him the first verses of the well known airs—"Heil dir im Siegerkranz"

and "Die Wacht am Rhein," he answered, "It first goes high then low, then again high," without recognising the tunes.

Dr. Bernhardt observes that this is a good instance of the word-deafness of Kussmaul or the sensorial aphasia of Wernicke. It is quite uncomplicated, the intellect appearing to be intact. No paralysis remained save a slight slowness of the right side of the face. The man's spelling was peculiar; but it was doubtful whether this was not owing to an imperfect education. Dr. Bernhardt is inclined to believe that there is an embolic softening of the left hemisphere, probably of the first and perhaps of the second temporal convolutions.

The Professor gives a shorter account of another case of a similar kind.

Dr. N. Weiss ("Centralblatt für Nervenheilkunde," 31 August, 1882) gives the lesions found in the brain of an old man who died after having had for three months aphasia, word-deafness, and paralysis of the right side. There was degeneration and softening of the parts supplied by the artery of the Sylvian fissure on the left side. As in all cases of word-deafness there was a lesion of the first temporal gyrus.

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2. *English Retrospect.*

Asylum Reports.

(Concluded from p. 304.*)*

Eastern Counties Asylum for Idiots, Essex Hall, Colchester.—This institution, which is still under the assiduous care of Mr. Millard, is being enlarged, the demand for admission being much greater than the accommodation could supply. Provision is, or is about to be, made for about 50 more cases; a new steam laundry; a gymnastic and recreation hall combined; bath rooms, lavatories and water-closets; the outlay being estimated at about £12,000. At the last annual meeting a powerful appeal was made for funds. Dr. Bateman stated that there are in the Eastern Counties 3,000 idiots, of whom at least 1,000 needed the benefit of such an asylum, whereas there was accommodation for only 99, and he justly describes the inmates of the cottages where an idiot dwells as doomed to constant association with the most repulsive features of humanity, and obliged to breathe an atmosphere of moral miasma. No doubt the appeal of the committee will be responded to, but doubtless the efforts required to obtain subscriptions and donations involve much labour and anxiety.

Kent County Asylum, Barming Heath, Maidstone.—Dr. Pritchard Davies has, we are glad to observe, adopted the proposed tables of the Association. Although unable to go back so far as the opening of the asylum, he has given the figures from 1875. The result as regards recoveries is as follows:—Persons admitted during eight years,

2,412 ; persons discharged recovered, 910, being 37·72 per cent. of persons admitted. Of these 302, or one-third, relapsed, leaving 608 persons still sane. Further of the relapsed persons 249 were again discharged well, leaving the net recoveries 35·53 of the number of persons admitted. The statistics of recovery are in this way brought out in a most interesting manner. Had the calculation been made in the old-fashioned way on cases instead of persons the number corresponding to 37·72 would have been 40·5.

The crowding of the asylum with patients who might have been just as well in workhouses is referred to. It appears that the Commissioners in their last report commented upon the unreasonable use of wards. Dr. Davies observes—I am convinced that, apart from over-crowding, these patients exercise an injurious influence upon those whose disorders are of an acute and consequently more curable nature. I think, therefore, that in the long run it would be cheaper for the Guardians to provide suitable accommodation for them in the workhouses, and forego the present advantage of the grant in aid when in an asylum. It is, however, almost impossible to get this view adopted in the right quarters, so that the only hope left is that the Government will, at no distant date, re-consider this grant, and dispose of it in a less objectionable way. If a change of some sort is not made soon, the question of providing increased asylum accommodation will once more force itself upon your notice, as despite every care upon my part we are unduly full."

Two striking cases of "homicidal impulse" are chronicled, a male attendant having in each instance been murderously assaulted. "Each patient had been previously regarded as harmless, and the attacks were absolutely unprovoked, and must have been the result of that sudden homicidal impulse we but too frequently meet with in asylums ; and which, from the impossibility of predicting its advent, renders every person of unsound mind a source of danger."

We are very glad to observe that Dr. Davies is pushing the employment of patients to the greatest extent compatible with the strength and health of the patients. The latest addition to the workshops is a carpenter's shop. There is great force in the remarks made in this connection. "Worshops where the artizans are not attendants may be necessary for some purposes, but an asylum cannot be regarded as satisfactory if no provision is made for the suitable employment of all classes of patients, under the constant supervision of responsible attendants. Where such workshops do not exist it must of necessity happen that some patients, who are skilled workmen, are unable to follow their handicrafts on account of the undue risk that would be run in sending them to shops where only ordinary mechanics can give them but intermittent care. Already skilled painters, basket makers, and carpenters, not formerly employed here at their trades, have been set to congenial work in these new shops, and derived great benefit from the change. Not only are shops of this kind valuable for the

class of patients I have just named, but they serve another purpose, viz., that of schools, where patients can be taught some interesting work, and be roused out of the misery of an idle life. I hope to develope this system more in the future, as I regard work, and more particularly skilled work, as one of the most potent remedial agents we possess."

Great improvements have evidently been made in this asylum from time to time, and there are several points in the treatment of the patients which render the results of more than usual interest. We referred in the last number of the Journal to the fact that the withdrawal of beer from the dietary had proved satisfactory, as in not a few other asylums, and the practice of the asylum as regards narcotics is already well known.

Wilts.—The sanitary condition of this asylum is evidently much improved. Only three slight cases of typhoid occurred during the year, and no erysipelas. It is believed that this beneficial change is due to improved ventilation of the wards and ventilation of the sewers.

Worcester.—The drainage of this asylum calls for, and is about to receive, immediate attention.

Dr. Cooke presented a very full report to his Committee on beer. He recommends its almost total abolition, and the substitution of milk. His report is thorough and sensible.

Yorkshire, East Riding.—It is very satisfactory to find that walking parties beyond the asylum grounds have become a matter of routine, and that all but six male and two female patients are able to take part in them.

Yorkshire, North Riding.—Dr. Hingston reports favourably of the dormitories constructed for the use of epileptic and suicidal patients. He has introduced an electric clock, by which an unerring record of the visits paid by the night attendants is obtained. The management of the asylum is evidently carried out vigorously.

Yorkshire, West Riding.—Important alterations have been made in the drainage, with markedly good results.

No fewer than 97 patients were discharged "relieved," being handed over to the care of their friends or the Union authorities. In spite of this the asylum remains full.

Dr. Major reports that he has sought to diminish, as far as practicable, the number of patients confined to the airing courts for exercise, and now the patients from the female refractory wards have, equally with others, daily recreation in the walks skirting the estate, to their decided advantage, and with the result of securing comparative tranquillity in the airing court.

Yorkshire, South.—This asylum continues to fill up rapidly. Additional accommodation is to be provided for 150 patients, and the Visitors report that a third asylum is necessary, and must be built without delay. This is a dismal conclusion, and suggests unpleasant reflections. Surely we are on the wrong track.

York Retreat.—Amongst the improvements effected during the year not the least important was the warming by hot water of all the rooms on the male side. There has been no lack of zeal or expenditure in the attempt to introduce every comfort and improvement into the institution. Dr. Baker states that the Turkish bath has been in daily use for nearly five years, "with very satisfactory results."

York Lunatic Hospital (*Bootham*).—A very decided difference of opinion has for long existed between the Governors of this hospital and the Commissioners relative to the presence of paupers in the asylum. Whatever may be the legal aspects of the question, it is quite certain that for the success of the institution as a middle-class asylum the pauper should not be there. Witness the Murray Royal Asylum, where the pauper patients were removed with marked benefit. We know that the late Mr. Gill warmly approved of the protests of the Commissioners. The asylum seems fated to get into hot water, notwithstanding the pleasing contrast it presents in its old age to that by which it was characterised in the days of its youth.

PART IV.—NOTES AND NEWS.

THE ANNUAL GENERAL MEETING OF THE MEDICO-PSYCHOLOGICAL ASSOCIATION, 1883.

The annual meeting of the Medico-Psychological Association was held on Friday, 27th July, at the Royal College of Physicians, London, Dr. Orange presiding. The following members and visitors were present:—Drs. C. Aldridge, Alliott, D. Bower, W. Burman, R. Boyd, Blandford, Fletcher Beach, Bucknill, J. Crichton Browne, E. Maziere Courtenay, D. Cassidy, P. E. Campbell, J. A. Campbell, A. C. Clark, F. P. Davies, English, J. T. Hingston, W. W. Ireland, O. Jepson, J. Murray Lindsay, Thos. Lyle, H. J. Manning, Donald Mackintosh, G. Mickley, W. J. Mickle, John Manley, M. D. Macleod, G. W. Mould, H. H. Newington, A. Newington, D. M. M'Cullough, T. W. McDowall, W. Orange, G. H. Pedler, H. T. Pringle, H. Rayner, A. H. Stocker, H. Sutherland, G. H. Savage, Arthur Strange, Edward Swain, J. Beveridge Spence, George Thompson, E. Toller, D. Hack Tuke, C. Molesworth Tuke, John A. Wallis, W. E. R. Wood, A. Law Wade, Francis J. Wright, J. F. Wright, Lionel A. Weatherly, E. S. Willett, H. Winslow, T. Outterson Wood, D. Yellowlees, &c. Also, Dr. Nugent, of Dublin.

Dr. ORANGE, in taking the chair, thanked the Association for the honour they had done him in selecting him to be their President, and assured them that he would discharge the duties of the office to the best of his ability. He was sorry to be obliged to communicate to the Association as the first business that the President for the year that had just expired, Dr. Gairdner, would be unable to be present. In a letter he had received from Dr. Gairdner that gentleman said "You will remember that when it was agreed to hold the Annual Meeting in July, I felt obliged to intimate to the Secretary, Dr. Rayner, that it would be extremely difficult, if not impossible, for me to be present on account of the arrangements connected with our graduation. After due consideration, it was held that my duty in occupying the chair being merely formal, it would not in any way interfere with the business of the meeting were I to be absent. I have therefore only to request that the Chairman, whoever he may be, who shall

temporarily occupy my place, will have the kindness to give effect to this my apology, and to assure the Association of the great and abiding sense I entertain of the entirely unlooked for honour they did me in electing me their President. I can most truly say that the duties of the office have been rendered light and full of enjoyment to me by the cordial co-operation of all concerned in them, and that I shall cherish to the last hour of my life the recollection of the many friendships made and received in connection with my year of office." He (Dr. Orange) could only express on his own part, and he was sure that in doing so he was expressing the feeling of the meeting, great regret that Professor Gairdner was unable to be present.

Dr. MURRAY LINDSAY proposed a vote of thanks to Dr. Gairdner for his services as President during the last year. All who had had the pleasure of being present at the Glasgow meeting last year would well remember the hospitality and kindness with which they were received, and those who were privileged to listen to the address must have been impressed with the comprehensiveness of its nature. He thought the Association was honoured by having secured the services of so eminent a practitioner.

Dr. JEPSON seconded the motion, saying that they all knew that it was a great disappointment to Professor Gairdner not to have been present with them.

The vote of thanks was carried with acclamation.

Dr. IRELAND proposed a vote of thanks to the Editors of the Journal. Dr. Hack Tuke and Dr. Savage were well known as men who were very well acquainted with the literary art. He did not think that two other gentlemen could be found in the United Kingdom who were better qualified to fulfil the office of Editor. He had himself worked under those gentlemen, and he had always had every kindness, courtesy, and assistance—not only from those gentlemen but from the previous Editors, Drs. Maudsley and Clouston. He considered that the editors should be supported by the members of the Association. Want of information, perhaps, sometimes kept back a great deal of valuable matter which might be very usefully recorded in the Journal. He hoped members would remember this, and think what an assistance, often, their very valuable notes of cases would be. He might say that he thought it would be a considerable advantage if the papers and notes could be always printed in the report of the proceedings. Without them it was difficult to understand the discussions, and in fact the speeches and criticisms made might as well not be printed at all. He had great pleasure in proposing the thanks of the meeting to the Editors.

Dr. MICKLE confirmed all that Dr. Ireland had said. Those who had the pleasure of contributing to the Journal were very well aware of the kindness and consideration they had received from the Editors. The post of Editor was one of great delicacy and difficulty, and he was sure they were all agreed that the present holders of the office had accomplished all their duties with the greatest kindness and consideration; therefore, without further detaining the meeting he would beg leave to second the vote of thanks.

The PRESIDENT said it was the unanimous expression of the Association that they were under the very greatest obligations to the Editors. If all the members would make it a sort of rule that they would make one communication to the Journal in the course of the year it would be a good thing. It seemed scarcely fair that the Editors should have to write articles for want of other material.

Dr. HACK TUKE, on behalf of Dr. Savage and himself, thanked the Association for the kind way in which their services had been referred to. It was often a very difficult matter to decide between various articles in regard to their admission, and therefore the Editors had to look to the members for their forbearance in many instances. He hoped they would always understand that it was their strong desire to be kind and courteous to all who sent papers. With regard to the observations of Dr. Ireland, he quite agreed with him that the papers and the discussions should come together, but they must understand that it had not been the fault of the Editors, but simply the fault—if it were a fault—

of the writers of papers, the writers having elected to send their papers to other journals. It was an understood rule that anyone reading a paper at one of the meetings should send that paper to the Editors of the Journal. Perhaps the Journal had in some respects of late met with the approval of the members of the Association from the Editors having endeavoured to seize the most important points of interest during the quarter, and to comment upon them in the Journal. The Editors would certainly be very glad to be supported more than they were, especially in regard to communications having reference to topics which they had suggested in the Journal for discussion—for example, moral insanity, &c. In such cases, the number of communications had been extremely small. Considering the vast number of opportunities for observation possessed by medical superintendents of asylums, it would seem that many more of these communications might be forthcoming, and yet, as anyone might see by reference to the Journal, the communications had been very few indeed. Not only had they had difficulty, as Dr. Savage put it last evening, in obtaining "even facts," but they had had difficulty in obtaining original articles.

The PRESIDENT said that he had the pleasure of proposing a vote of thanks to the Treasurer. He felt sure that the members must feel very much indebted to the Treasurer for the mode in which everything connected with his department was carried on; the courtesy with which all the members were informed from time to time of the advent of a new financial year, the accuracy of his accounts, the satisfactory nature of them throughout, the readiness with which he acted not only as Treasurer, but, if he might say so, as one of the permanent officials of the Association, were such as to deserve their warmest thanks.

Dr. JEPSON seconded the motion, which was carried by acclamation.

Dr. PAUL said that he felt most deeply gratified at this renewed expression of their goodwill. It had been for many years a source of great pleasure to him to promote the welfare of the Association, and also the pleasure and comfort of the members. He thanked them most sincerely and cordially for the kind way in which their sentiments had been expressed.

The GENERAL SECRETARY (Dr. Rayner) then submitted the minutes of the last annual meeting, which were printed in No. CXXIII. of this Journal (October, 1882).

The minutes, having been taken as read, were confirmed.

Dr. MURRAY LINDSAY moved a vote of thanks to the Secretaries. He said he did so with the greatest pleasure, and he felt that he was only expressing the feeling of the Association in saying that they had three excellent secretaries who did and had done very excellent work, and who were energetic, and had the interests of the Association at heart. They had served the Association well, and were deserving of a vote of thanks.

Dr. H. WINSLOW seconded the motion, which was carried.

Dr. RAYNER (General Secretary) said that on behalf of his brother secretaries and himself he most cordially thanked the Association for the vote of thanks. He added that he could not help agreeing with Dr. Savage's expression of opinion on a previous occasion that there was considerable difficulty—more than there should be—in getting papers for the meetings, but he differed from him as to where the fault lay. He thought the senior members should be more willing to come forward, and start the discussions which were so much needed.

The TREASURER, Dr. Paul, submitted the Balance Sheet of the Accounts for the past year, which will be found on page 438, the same having been duly examined and certified as correct by Dr. Willett and Dr. Hingston.

The PRESIDENT remarked upon the satisfactory circumstance that there had been an increase in the amount received by the sale of the Journal.

The next business being the appointment of Officers and Council for the ensuing year,

The PRESIDENT explained the mode of voting, and nominated, in accordance with the rules, the three following gentlemen to act as scrutineers, viz :—Drs. Lindsay, Ireland, and Campbell.

THE MEDICO-PSYCHOLOGICAL ASSOCIATION.

The Treasurer's Annual Balance Sheet, 1882-83.

RECEIPTS.	£	s.	d.
To Balance—Cash in Hand	250	14	10
To Subscriptions received	251	2	6
By Secretary for Ireland	27	6	0
By Secretary for Scotland	43	1	0
By Sale of Journal, Messrs. Churchill	132	0	0
By Interest on Consols, £205 7s. 10d.	5	19	11
	£710	4	3

EXPENDITURE.	£	s.	d.
By Annual and Quarterly Meetings	36	6	8
By Expenses of Reporting at various Meetings ...	12	8	0
By Editorial Expenses	12	12	0
Printing, publishing, engraving, advertising, expenses, and postage of Journal ...	361	4	5
By Sundry Expenses	9	18	0
By Treasurer	6	6	0
By Secretary for Ireland	0	4	5
By Secretary for Scotland	5	5	0
By General Secretary	2	14	0
By Balance in Treasurer's hands	263	5	9
	£710	4	3

Audited and found correct, } E. SPARSHALL WILLETT.
J. TREGELLES HINGSTON.

Royal College of Physicians.

July 27th, 1883.

J. H. PAUL,
TREASURER.

Dr. THOMPSON said he had long felt that the Council was not sufficiently representative. There was one class of members who had never been represented, viz., the Assistant Medical Officers of the Asylums. The private asylums were represented, the county asylums and hospitals represented, but the assistant medical officers were not represented. He would suggest, in fact he would propose, that all the names be taken except one—say the last name—in the list of members of the Council, and that the name of Dr. Bevan Lewis should be substituted as representative of the assistant medical officers.

The PRESIDENT asked Dr. Thompson if he adhered to the last name as the one to be struck out. That particular name was the only name representing the northern division.

Dr. THOMPSON said there was a secretary for Scotland, and he thought there were others on the list.

The PRESIDENT said that in substituting one name for another it would be well to strike out an English name.

Dr. CAMPBELL suggested whether, the subject having been ventilated, the matter should not be allowed to rest till next year. The Council might in the meantime give consideration to it.

Dr. MURRAY LINDSAY said he would suggest that his own name should be struck out in favour of Mr. Bevan Lewis, who would be a very excellent representative.

Dr. THOMPSON said he was very pleased to find that his proposal had been received with such favour. If the Association would allow him, he would withdraw the motion for this year, but he hoped that next year that very important class would not be excluded. There were many excellent men who had not yet won their spurs who were doing good work at the asylums.

The lists having been collected the scrutineers retired to examine them, and subsequently reported that the nominations of the Council had been unanimously supported, whereupon the following gentlemen were declared by the President to be duly elected as

OFFICERS AND OTHER MEMBERS OF THE COUNCIL FOR THE YEAR 1883-4.

PRESIDENT-ELECT	JOHN MANLEY, M.D.
TREASURER	JOHN H. PAUL, M.D.
EDITORS OF JOURNAL...	D. HACK TUKE, M.D. G. H. SAVAGE, M.D.
AUDITORS	E. S. WILLETT, M.D. J. MURRAY LINDSAY, M.D.
HONORARY SECRETARIES	E. M. COURTENAY, M.B. For Ireland. J. RUTHERFORD, M.D. For Scotland. H. RAYNER, M.D. General Secretary.

NEW MEMBERS OF COUNCIL.

HENRY F. WINSLOW, M.D.	J. T. HINGSTON, M.R.C.S.
H. R. LEY, M.R.C.S.	T. AITKEN, M.D.

Dr. MANLEY said that no one was more surprised than himself when he received the intimation that he was to be proposed as President. He did not know that he had done anything to merit that honour, so he wrote to Dr. Rayner asking him to induce the Council to appoint someone else, but Dr. Rayner's views did not coincide with his own in that respect. He therefore thanked them very much for the position in which they had placed him, and in accepting it he relied much upon the assistance of Dr. Rayner, who knew so well the way in which the business was conducted, and also on their indulgence and kindness in overlooking and pardoning any faults.

The election of ordinary members was then proceeded with. The balloting box having been sent round, and there being no dissentient vote, the list was

taken *en masse*, and the following gentlemen were declared to have been duly elected ordinary members, viz.:—

Henry A. Layton, L.R.C.P.Edin., Cornwall County Asylum, Bodmin.
S. Macken, M.B.Ed., Hertford British Hospital, Paris.
Rowland H. Wright, M.D. Ed., Melrose.
E. D. Rowland, M.B., C.M. Ed., Whittingham Asylum, near Preston.
W. Crump Beatley, M.B.Durham, Somerset County Asylum.
S. Ernest de Lisle, L.K.Q.C.P., Three Counties Asylums, Stotfold, Baldock.
F. H. Walmsley, M.D., Leavesden Asylum.
Geo. E. Miles, M.R.C.S., Res. Med. Officer, Northumberland House, Finsbury Park, N.
A. Henry Boys, L.R.C.P.Edin., Lodway Villa, Pill, Bristol.
R. J. Legge, M.D., Ass. Med. Officer, County Asylum, near Derby.
F. A. Selby, M.B., C.M.Ed., Ass. Med. Officer, Wye House, Buxton.
J. B. Spence, M.A., M.B.Ed., Ass. Phys., Royal Asylum, Morningside, Edinburgh.
J. A. Johnston, M.D., District Asylum, Monaghan, Ireland.

Dr. HACK TUKE said that it very frequently happened that members would leave the locality in which they were living without communicating their change of address. The Journal would go to the old address and would be returned through the post-office. He hoped that the members would take pains to inform the Editors of change of address. Neglect of this caused great difficulty, and members omitting to do so could not complain if they did not receive the Journal.

Dr. CAMPBELL said he hoped he might be permitted to offer a suggestion to the Secretary for Ireland. Might he be allowed to call his attention to the success which had attended the Quarterly Meetings, both in England and Scotland, and suggest that more meetings might be held in Ireland. He merely threw this out as a suggestion.

Dr. COURTENAY said that they had made several attempts, and if Dr. Campbell would go over and help, they would be very pleased to see him. The distances were very great, and travelling was not so easy as in England, and up to this time Quarterly Meetings in Ireland had been rather a failure.

On the subject of the appointment of the next Annual Meeting,

Dr. CAMPBELL moved that the meeting should be held in London. He said he would also suggest that it should take place before the end of July. Hitherto they had frequently met at a time very inconvenient for them—in August. That year he was glad to find they were meeting in July. Many of them were accustomed to go for their holidays in August, and so if it met the convenience of the President and members of the Association he, for one, would be very glad if the meeting could be arranged for the third or last week in July.

Dr. MANLEY said that he should be very pleased to adopt any wish of the Association as to time.

Dr. YELLOWLEES pointed out that the British Medical Association very often met at this time, and many of the members tried to make the two fit.

Dr. STRANGE asked whether they could not hold their meetings at the same place as the British Medical Association. The Psychological section there had become almost a more important matter than the Association here, and if they could hold their meetings at the same time, they would probably have a larger attendance and take a better position. This year the British Medical Association was at Liverpool. He thought all would agree with him that the meeting at Liverpool would be a larger one than their present meeting, and it might be almost worth their while if they made some arrangement to join their meetings, and if they could get the management of the Medico-Psychological section of that Association it would be a good thing. He would not propose a motion, because he had not given notice of it, but he thought it would be well if they could meet in the same week as the British Medical Association.

Dr. CAMPBELL said that that had been already discussed years ago, and he thought the conclusion arrived at was that it would be inadvisable for them to attach themselves to a much larger society.

Dr. THOMPSON said that he brought the matter up some time back. His reason for suggesting July was this—that there was a great attraction in London for countrymen then, viz., the Royal Academy. Dr. Rhys Williams fell in with his suggestion, and he believed ever since the meeting had been held in London in July. He thought it would be a great pity if they were attached to the British Medical Association. They did not know where the next meeting of that Association would be held. He thought they had better go on as they had been doing.

The PRESIDENT said that in fixing the date for their Annual Meetings in London they had to take into consideration the date when the premises in which, by the kindness of the President and Fellows of the College of Physicians, they were meeting, would be disengaged. With regard to what had been said as to meeting in the same place as the British Medical Association, it would be hardly possible to meet in the same place and preserve their individuality. To actually merge themselves in the section of that Association might or might not be ultimately advantageous to this Society. He thought the same thing might be said in regard to the Obstetrical Society and other Societies meeting in London. Their own Association held Quarterly Meetings, as well as an Annual Meeting, and it would not be possible, except by the discontinuance of the plan of the Quarterly Meetings, to absolutely cease to be a separate society, which he took it would almost be a natural result if they simply went to the meeting of the British Medical Association.

Dr. HACK TUKE seconded Dr. Campbell's proposition that the meeting should be held in London, and it was resolved—That the place of meeting next year be London, and that the day of meeting be as near as possible to the last Friday in July. He trusted they would never be so wanting in self-respect as to allow themselves to be merged into the British Medical or any other Association.

The next business being the consideration of reports of committees, Dr. RAYNER, General Secretary, reported that the Parliamentary Committee had met two or three times since the last Annual Meeting to consider the Bill which had seemed to be likely to be brought before Parliament, and which had since died a natural death, and that Committee had also adopted some resolutions with reference to pensions, which resolutions were printed in the Journal and forwarded to various members of the Government.

Dr. CAMPBELL said that he felt sure the Association would join him in expressing to Dr. Murray Lindsay their extreme thanks for the trouble he had taken in regard to the question of pensions. Dr. Lindsay must have spent money and time in working in their interests for years, in a most disinterested way. He (Dr. Campbell) very much regretted that their meeting at Glasgow was so hurried that the time did not permit of his thanking Dr. Lindsay then.

As regards the Statistical Committee, the GENERAL SECRETARY read the following report, which was adopted :—

> The Statistical Committee, having considered whether it is desirable that any changes should be made in the New Statistical Tables, propose that they should be continued in their present form for another year, attention being again drawn to printers' errors in the said tables by a reprint in a future number of the Journal.
>
> The Committee are glad to observe that a considerable number of Superintendents have adopted these tables, and hope that in the course of another year they will have been generally adopted. In the meantime, the Committee will be glad to receive any suggestions from Superintendents who have found the tables defective or incorrect.

Dr. CAMPBELL said that he would suggest that, instead of *one* year, *ten* years should be inserted in the motion for the adoption of the tables. He thought it was a great pity for them to introduce tables for a year—a very great pity indeed. If the members were satisfied with the new tables, he thought it should be for a ten years' period. Before moving this, however, it would afford him great satisfaction if Dr. McDowall would inform them of his opinion of the

tables. He would himself have gladly introduced them last year, were it not that he was reporting on a decennial period of his asylum.

Dr. McDOWALL said that he thought honestly that the new tables were a little troublesome to prepare, at all events for the first year, but that they were decidedly better than the previous tables ; and he thought that the proposal read by the Secretary, that they should be continued from year to year, was better than the proposal that they should be continued for ten years. The matter was entirely optional, and as the tables were still under trial, it would be well they should only be continued for a single year.

The PRESIDENT pointed out that in the proposition that the tables should be adopted for this year, there was nothing to prevent their being continued for ten years.

Dr. CAMPBELL said, no there was not; but they might adopt them as the tables of the Society. If they did not intend to adopt the tables, probably a great many men would not adopt them.

Dr. HACK TUKE said there were certain points admitting of improvement; and to adopt the tables without those improvements would give rise to dissatisfaction. He hoped they would see their way to adopt them as the tables of the Association, subject to revision by the Statistical Committee. At present they had been adopting the new tables on trial for one year, and the question was—should they be continued for another year or adopted permanently as the tables of the Association ? He thought they might be adopted permanently, if the Association would now leave them in the hands of the Statistical Committee.

Dr. THOMPSON said that the only improvement he should suggest as to the new tables was that they should be erased altogether. He could not see a bit of use in them. The old tables contained everything anybody would like to know, and gave sufficient scope. The more tables they had the more manipulation of figures there would be. The best way, he thought, would be to express no opinion ; but if any opinion were expressed, it should be that they should place reliance upon the old tables and none at all on the new ones.

Dr. CAMPBELL said he would move the adoption of the report of the Statistical Committee, and would propose that the tables should be adopted as the tables of the Society, subject to revision as required ; also that they should be forwarded to the English and Scotch and Irish Boards of Lunacy. He would also suggest that the present Committee should be continued.

Dr. THOMPSON said it would be better to leave it alone. Let those who liked to adopt the tables do so. Let the matter stand over, and be taken up again in, say, four or five years' time. He would propose an amendment to the effect that no opinion whatever be expressed on the new tables as published in some of the reports of the asylums, and that no action be taken.

Dr. STRANGE seconded Dr. Thompson's proposal. As a matter of fact, he preferred the old tables. He might be converted to the new ones in time, but he was not at present prepared to adopt them.

Dr. CAMPBELL said he thought it only right that they should remember the thought and trouble which had been taken in connection with the new tables.

Dr. MANLEY thought the new tables ought to be adopted. If each superintendent presented his own tables, there would be no means of getting comparisons.

The PRESIDENT pointed out that the Statistical Committee consisted of about seventeen members, being therefore a largely representative Committee ; and he thought they could hardly now throw over the work which had been done.

After some further discussion, in the course of which Dr. YELLOWLEES urged that the amendment was irregular and unintelligible, and Dr. BURMAN suggested that it would be best to simply adopt the report of the Committee,

The PRESIDENT put the amendment proposed by Dr. Thompson, viz. :—"That no opinion be expressed as to the supplementary tables until time be allowed for testing their usefulness."

The amendment was declared to be lost, only two votes being given in favour of it.

The original motion was then put to the vote, and it was resolved as follows: "That the tables be adopted, subject to revision as required, and that the Secretary forward copies of the tables to the different Boards of Lunacy in the kingdom."

Dr. CAMPBELL then moved that the Committees of the Association should be heartily thanked for their work in the past, and requested to accept re-appointment.

Dr. THOMPSON seconded this, and the Committees were re-appointed accordingly.

The SECRETARY then read the following Report of the Adjudicators on the Essays prepared by Assistant Medical Officers of Asylums, in accordance with the resolution of the Annual Meeting of the Association in 1882, viz. :—

We beg to report that four Essays were sent in by the appointed time.

Of these, Nos. 3 and 4 approach most nearly to the conditions of the prize in respect to the most important particulars—clinical and pathological observations No. 4 was accompanied by some microscopical preparations illustrative of the writer's essay; and we have, in deciding between the merits of Nos. 3 and 4, been finally guided by the consideration whether the pathological observations of the latter are of real interest. Assisted by Dr. Savage and by Dr. Coats, of Glasgow, who have kindly examined the preparations, we have concluded to recommend that the prize of £10 10s (without a medal) should be awarded to the writer of No. 4 ("Multum in Parvo"). We would, at the same time, highly commend Essay No. 3 ("Faire sans dire"). The other papers, while possessing merit, do not appear to us to answer to the intention of the Association in offering the prize.

We regret that out of the large number of Assistant Medical Officers attached to Asylums, so few should have been willing to compete for the prize.

(Signed) W. G. GAIRDNER.
D. HACK TUKE.
W. ORANGE.

No. 1 Motto :—"He shall be as a god to me who shall rightly divide and define."—*Plato.*

No. 2 :—"From a few elevated points we triangulate vast spaces enclosing infinite, unknown details."—(*O. W. Holmes.*)

No. 3 :—"Faire sans dire."

No. 4 :—"Multum in Parvo."

The PRESIDENT then declared the winner of the prize to be Dr. J. Wiglesworth, of the Rainhill Asylum, Lancashire, adding that it was not the first time that that gentleman had been heard of in connection with literary contributions.

Dr. CAMPBELL asked whether he heard rightly that the money-prize was to be given, and not the bronze medal?

Dr. HACK TUKE replied, referring to the minutes of the last Annual Meeting, and pointed out that the bestowal of a medal was discretionary.

Dr. CAMPBELL said he was quite satisfied.

Dr. WEATHERLEY said he should like to make a proposal that the time of the Quarterly Meetings should be more defined. The notice given was too short.

The GENERAL SECRETARY replied that the difficulty lay in obtaining a room and obtaining papers. If they could always calculate upon having a room, much of the difficulty would be removed.

After further discussion,

Dr. HACK TUKE suggested that, as Dr. Savage was kind enough to make it convenient for them to meet at Bethlem, it would be well to have his views on the matter.

Dr. SAVAGE replied that the last Friday of any month would suit as regards Bethlem; and after further discussion, it was agreed that, if possible, a card should be issued to members fixing the date of the Quarterly Meetings for the year.

The PRESIDENT stated that some microscopic preparations had been kindly prepared by Drs. Savage, Bevan Lewis, and Fletcher Beach, principally with the view of endeavouring to mark whether there had been any advance made in being able to connect pathological changes with the disorder of mental functions. Very few steps had been taken in that direction, and there was a wide field before them for investigation.

The SECRETARY then read the following letter from Dr. Clouston:—

Royal Asylum, Morningside, Edinburgh,
23rd July, 1883.

DEAR SIR,—Will you allow me to bring before you the suggestion of a respectful petition to the Lord Chancellor by the Medico-Psychological Association, that his Lordship, in making the higher Lunacy appointments of the kingdom, such as the Medical Commissionerships in Lunacy and Lord Chancellor's Visitor in Lunacy, should bestow them on members of our profession who have devoted special attention to the subject of mental diseases, and have a recognised reputation in that department of medicine.

Some of the reasons that might be adduced to his Lordship for this step, on the part of the Association, are the following, viz. :---

1. The Association contains by far the greater number of medical men who have specially studied mental disease in the United Kingdom, and consists of over 400 members. It may therefore be regarded as having by its position some justification to look after the interests and fair claims of that department of medicine.

2. This department of medicine has enormously increased in importance and numbers of late years, there being now over 500 medical men engaged in it, wholly or in part.

3. It is a difficult department, having to do with obscure questions most important to a very helpless class of society; and the practice of it has many things specially disagreeable and trying to those who follow it. It is most important for the insane, for the future progress of medicine, and for society, that some of the very best minds in the profession should be attracted towards its study.

4. The prizes and rewards of successful work in the department are not many or very high, and the appointments referred to have been always considered in that category. To attain them has been the incentive to good work among many in the past. To see them conferred on men who have done no work in the department acts as a discouragement to those who have entered it, and will prevent good men entering it in the future. The teachers of the subject in the medical schools have already much difficulty in inciting the best men to take up the subject.

5. Those who have to be directed and advised by the holders of such appointments would have far more confidence in, and pay more respect to, the opinions of men who had devoted special attention to the subject of mental diseases, or who had practical acquaintance with the management of the insane. Many of the insane in whose interest those appointments are made, would also have far more confidence in such men.

I am, Dear Sir,
Yours faithfully,
T. S. CLOUSTON.
Lecturer on Mental Diseases in the University of Edinburgh.

Professor W. T. Gairdner,
President of the Medico-Psychological Association.

The reading of this letter was followed by loud applause.

The PRESIDENT said that he was sure they all appreciated the very chivalrous motives with which that letter had been sent to the Association, and he had only to make a very short proposal, namely, that it should be received and entered on the minutes.

This course was adopted in silence, and the morning meeting was brought to a close.

AFTERNOON MEETING.

Dr. ORANGE, the President, read letters from the following noblemen and gentlemen expressing regret at not being able to be present :—The Right Hon. Sir W. Vernon Harcourt, the Earl of Shaftesbury, the Earl of Rosebery, Dr. Mierzejewsky, Dr. Motet, Dr. Foville, Dr. Blanche, and Dr. Ritti.

The PRESIDENT then read his Address, which is printed at page 329 of this Journal (Original Articles, No. 1).

Dr. BUCKNILL said that it was a most agreeable duty to him to propose a vote of thanks to Dr. Orange for the admirable address to which they had just listened. It was one of the most interesting addresses he had ever listened to, and he thought he should carry with him the general consensus of the opinion of that meeting that it was one of the most able, if not the most able, of the addresses which had been delivered before that Association. It was the result of Dr. Orange's great wealth of material for observation, of his very great diligence in making use of that material, of his great common sense, and of the peculiar subtlety of mind which had enabled him to grasp successfully and to deal with the difficult questions bordering upon metaphysical study which were inextricably involved in that most important question of the responsibility—or,

he would rather say—the irresponsibility of the insane. Dr. Orange occupied a very useful, high, and important position. He did not know that any man in the specialty occupied a more arduous and more useful one, not only in the management of that great institution which was under his care—so successful and humane as it was—but in the use he made of the materials which it afforded for knowledge; not only in the way they then experienced, but also in the more frequent and practical and responsible way in which he was called upon by the Government to exercise it, when they were asked to review the action of courts of law, and practically to decide upon the fate of the unhappy fellow-creatures whose state of mind he had to report upon to the Home Secretary as to whether Her Majesty should exercise the prerogative of mercy. Dr. Orange had exercised that function with undeviating skill, diligence, and ability, and his services to the community and the Government, had been such as it would be very difficult to overrate. Dr. Orange had referred to the Lumleian Lectures in the year 1878, but his modesty had prevented him from saying how much of the material for those lectures had been sought for under his guidance at Broadmoor, nor had he stated the very wise advice he had given to that lecturer on the most intricate and difficult questions which arose, but he (Dr. Bucknill) knew well that obligations of the lecturer to Dr. Orange were extremely great in both those respects, and if ever the Lectures should be published in a separate form the lecturer owed it to Dr. Orange to acknowledge that great help. He would not further detain them from the discussion he trusted would follow, but would move—that the best thanks of the meeting be given to Dr. Orange for his admirable address, and that the Association were also delighted to see him in his present state of health after the perilous accident which had befallen him.

Dr. NUGENT, in seconding the motion, said that he cordially coincided with the opinions expressed by the President in regard to the question of Criminal Lunatics. He had drawn a clear distinction as to the characteristics of criminals, and ordinary insanity. There were difficulties, no doubt, and great difficulties, connected with the distinction which should be recognized between criminality and responsibility in persons who committed crimes. In his own department in Ireland he judged of every case upon its individual merits, looking to the antecedents of the person, and other attendant circumstances. If a person at Dundrum had committed an offence and was recovering, the length of his detention would depend upon whether he had shown a malicious disposition during the time of his treatment. Judgment was formed upon the conduct of the person in the institution. The number of lunatics discharged during the last fourteen years was 82, and he was happy to say that of all those cases there had been no case brought back convicted of any offence since discharge.

Dr. RAYNER then put the motion to the meeting, and it was carried with applause.

Dr. ORANGE could only say that he felt that the terms used by the proposer of the vote of thanks were altogether in excess of the circumstances of the case or of his merits. He had also to thank the Inspector and Commissioner of Control of Asylums in Ireland for the kind manner in which he had seconded the vote, and to tell him how very much he had learned from the early reports of Dundrum Asylum, which, as those present knew, was established before Broadmoor. The object of his somewhat disjointed address was rather to provoke discussion by the members of the Association, and he would therefore not detain them with any further remarks of his own, but would simply thank them all very heartily for the manner in which they had received the vote.

Dr. HACK TUKE said that he remembered that the late George Dawson, when lecturing on Shakespeare, said that he had often differed from him, but he had found in every instance that the great poet was right and he was wrong. In the present instance he thought that any difference of opinion from Dr. Orange was also almost certain to be wrong. In almost everything Dr. Orange had said, he (Dr. Tuke) for one united, and he thought that the way in which he had brought forward Sir James Stephen's work would be of great use. He thought they ought to congratulate themselves that an eminent jurist like Sir James

Stephen had discussed subjects of interest to medico-psychologists in the way he had. The admirable tone of his remarks ought to be a model to themselves. He (Dr. Tuke) was not quite so sanguine as the President as to the manner in which the legal test would be interpreted by other lawyers. The way in which Sir James Stephen interpreted it was so wide and liberal that it seemed to include almost everything they wished; but, seeing that the opinions of the Judges were before the minds of great lawyers previously, such as Lord Chief Justice Cockburn and Mr. Justice Blackburn, who understood them to speak in a much narrower sense than Mr. Justice Stephen read them, he could not but fear that other lawyers would understand them in the same sense. If the President could really convince the lawyers that by a "knowledge of right and wrong" was not meant what everyone had thought it did mean up to the present time—and was synonymous with absence of self-control—then the battle between medical men and lawyers was practically at an end. The test of responsibility really amounted to this as now explained:—That every one who had not the power of self-control had not at the particular time a belief that the act which he was committing was wrong for him to commit. Well, of course it may be said that if a man knows he cannot help doing a particular thing, he would not think himself culpable. That seems a truism. If that were the reading of the law, then the two things were indeed synonymous. But he could hardly think this was an interpretation which the Judges would sanction. There was a reference made to Baron Bramwell in the case of Dove, who was tried at York for poisoning his wife. Having himself been present at that trial, he (Dr. Tuke) must say that the impression produced at the trial was that the clear-headed Baron believed the legal test to be simply that of the knowledge of right and wrong. As he (Dr. Tuke) understood Mr. Justice Stephen, he wished to interpret the existing text thus:—It is the deprival of the power (in consequence of mental disease), of judging the moral character of the act committed. Mr. Justice Stephen, however, found that this did not entirely embrace the whole question, because, in one paragraph he says—"No doubt, however, there are cases in which madness interferes with the power of self-control, and so leaves the sufferer at the mercy of any temptation to which he may be exposed; and if this can be shown to be the case, I think the sufferer ought to be excused." Therefore that was supplementary to the new reading of the old test. They still had the vexed question of self-control to consider. Therefore he was afraid there was a great deal for medical men to do in regard to placing the matter in a just light. He happened to meet yesterday with an admirable address delivered by the President some years ago, and Dr. Orange then put the matter exactly in the way that he (Dr. Tuke) should have liked to put it. Dr. Orange said, "Indeed, the mode in which this test has been explained by some writers is such as to make the knowledge of right and wrong equivalent, to all intents and purposes in effect, to the power of refraining from the act in question; that is to say to the power of controlling conduct." (That was almost anticipating Sir James Stephen's chapter.) "I do not, however, think that the want of knowledge that an act is wrong in the ordinary sense, is by any means the same thing as the want of power in consequence of mental disease to refrain from doing it," &c. Then, a little later on, he said, "Such an opinion appears to be based upon this manner of reasoning—I believe the accused, from his history and from my examination of him, to be insane; I know that insane persons constantly do commit acts as the result of their insanity, which, at ordinary times, they know to be wrong; I assume that they would not commit such acts if they knew, at the moment when thought was passing into action, that the act was wrong; and I therefore arrive at the conclusion that the accused did not know that the act committed by him is wrong. That is to say" (Dr. Orange put it very forcibly) "instead of ascer, taining as a fact, in the first place, whether the person knew right from wrong-in order from that fact to deduce the presence or absence of legal insanity, this method reverses the order of things, and ascertaining in the first place by some independent method, that the person is insane, it argues that because he

is insane, therefore he cannot distinguish right from wrong as a sane man would." Then Dr. Orange said, "Surely it is better to abandon this obsolete test than to apply it thus." Dr. Hack Tuke continued to say that his fear was that, in attempting to retain the old test and apply it with the larger interpretation now proposed, there was still considerable danger of punishment being inflicted in cases in which there was a loss of self-control from cerebral disease, but a knowledge of right and wrong in the estimation of the judge charging the jury. It seemed a pity when the late Lord Chief Justice had admitted the force of our contention, that we should change our own minds.

The PRESIDENT, in inviting further discussion, said that he had to thank Dr. Hack Tuke for the very tender manner in which he had dealt with him, as indeed he was bound to do, inasmuch as he (Dr. Orange), like many others, was among Dr. Tuke's disciples, and had learned from Dr. Tuke's writings much of what he knew in regard to the question of derangement of mind. Dr. Tuke had done him the honour to quote from an address which he had given in 1876, but Dr. Tuke would perceive, if he examined the passage again, that the interpretation assumed to be put upon the words, "knowledge of right and wrong in respect to the very act with which he is charged," against which he was then endeavouring to contend, was by no means the interpretation which Mr. Justice Stephen had adopted. In the passage that Dr. Tuke had quoted, he was referring to what he thought was the mode in which some writers had at that time attempted to apply the words, and if time had permitted he would have given chapter and verse. The point he had in his mind when writing that passage was the supposition that a person might know the difference between right and wrong both just before and just after the commission of an act, but that just at the instant of the passing from thought to action he lost the knowledge that the act was wrong. This was quite a different thing from saying that a person who laboured under a delusion and who committed an act as the result of that delusion was as much unable to rightly estimate the moral quality of the act as he was to estimate rightly the character of his delusion. Much error had crept in from imagining that acts were sudden, when, in reality, they were premeditated. In the case mentioned by Lord Blackburn, to which he had referred, his Lordship had, in recounting the case, spoken of the woman as having killed her child "suddenly," but, as he had explained, it proved upon inquiry that the act was not done suddenly, but that it had been premeditated. It was, therefore, not when thought passed over into action that the loss of control occurred. The poor woman did control herself to a very large extent. She told her husband that she had had a good night, and that she felt better, simply to induce him to go to his work, and to leave her alone to carry out what she had been thinking over all the night. Few of the acts of that description were sudden, but they were usually the outcome of deranged thought. He had said that the interpretation adopted by Mr. Justice Stephen was very different from what he (Dr. Orange) had in his mind when he wrote the address quoted. But that was only a sign of growth. He hoped none of them stood absolutely still, and never had reason to modify opinions which they held ten years ago. He was glad, in this connection to be able to quote Lord Chief Justice Coleridge who, in a recent trial, when speaking of the application of the common law, in the way it was applied years ago, said: "It is to forget that law grows, and that though the principles of law remain, yet (and it is one of the advantages of the common law) they are applied to the changing circumstances of the times." That was certainly the case in regard to the application of the principles of the common law to the question of insanity. Many of the opinions of the Judges had been based upon medical opinions and medical statements of supposed facts which had, perhaps, afterwards turned out to be incomplete facts; and therefore it was not to be wondered at that the explanation of the common law had undergone some modification, *pari passu* with the modification, and, it was to be hoped, improvement, that had occurred in the medical treatment of persons of deranged mind during the last half century.

Dr. YELLOWLEES said he did not rise to differ, but only to ask a question.

They were in great danger of getting metaphysical in this matter, and of fighting over words. Was the suggestion made by Dr. Orange one which could be of any practical importance? He himself had always felt that their legal friends insisted upon having a man either absolutely mad or quite sane. Now did they not note and see every day the graduation of disease? Was there not a graduated degree of responsibility, and ought there not to be some graduation of punishment? Did they not often see cases where they could say, "No, that fellow does not deserve the utmost penalty of the law, but he does deserve some." Was there any reason why they should not be enabled, through a recommendation of jury, to graduate the penalty according to the graduation which undoubtedly the disease implied?

The PRESIDENT said he had formed a very definite opinion upon that matter, which was not in favour of the proposal that there should be graduated punishments for persons of varying degrees of insanity. He had come to the conclusion that one ought to make up one's mind upon the point—Is this person or is he not in such a condition mentally as to be liable to be punished according to law? He did not think that a graduated punishment would be advisable in any way. What they had to ascertain was just like ascertaining any other condition by a medical examination; and it was necessary that the examination and the diagnosis should have reference to the particular point in question. A patient might be insane, but he was not received into an asylum until he was certified. He was either a fit subject for an asylum or he was not. The same with regard to an inquiry *de lunatico*. The person was either to have the control of his property or not. It must be one thing or the other. Then again a person may make a contract or he may not make a contract. The contract must be void or not void, and it should be thus with regard to the question of the legal responsibility for a criminal act. He could mention a case in which just what Dr. Yellowlees suggested was done; the case of a man in 1862, who shot a woman with whom he was cohabiting, and then attempted to kill himself. The verdict was given in the following terms:—"Guilty. Very strongly recommended to mercy by the jury in the belief that although at the time responsible for his actions, he was labouring under great excitement, and also on account of his previous good character; the jury were unanimously of opinion that he had a belief that there was something improper between the deceased and someone in the house, and that though responsible for his actions, yet he was under a delusion about the young woman." Although the man was insane, the jury trimmed, and the result of that was that the man was not hanged, but was sentenced to penal servitude for life, which in practice meant twenty years. He was received into Broadmoor at the expiration of twenty years from the date of his sentence, and had then become a complete lunatic. For fourteen years he was going down hill, and it was not till after that period that he was sent to the insane ward of the prison. What could have been the good of torturing him during those fourteen years that elapsed between the date of his sentence and the date at which he became too utterly demented to be fit for any further penal discipline?

Dr. YELLOWLEES said that they would have to take some definite action with reference to the two resolutions of the President. He thought good ought to come out of it in this way. The medical officers of the prisons ought to be persons who would recognise the presence of insanity. In the case quoted by the President, the rider to the verdict had the effect of saving the man's life. He had the very strongest feeling as to the wisdom of the resolutions proposed by the President, and he thought the meeting should now proceed to consider them, and, if they thought fit, to adopt them.

Dr. CAMPBELL asked who had the sanction of the appointment of the medical officers of the prisons.

The PRESIDENT replied the Secretary of State for the Home Department.

Dr. CAMPBELL said he thought that it would more fully meet with the wish of the Association if the prosposal were modified to say that skilled advice on the subject should be called in. He did not think they need insist that the

prison medical officers should be skilled exceptionally in that subject. They might just as well say that because cases of midwifery occurred at the prisons that therefore it should be required that the medical officers of the prisons should have special knowledge of the obstetric art.

Mr. WALLIS said that it was a case of almost daily occurrence that some knowledge of the sort was necessary for prison surgeons, because those surgeons were frequently seen to mistake cases of insanity both ways; either recognizing persons wrongly as insane or not insane. That showed that some special knowledge would be very advantageous to the prison surgeons, and he thought the resolution read would meet that want.

Dr. BUCKNILL said that he was inclined to agree with the observations made by Dr. Campbell, because he thought that such a useful knowledge of psychological science as would enable prison surgeons to make successful diagnoses of the different cases, was not so easily obtained that they would be able to obtain it. He remembered when he was the medical superintendent of a county asylum being very frequently called upon to go to the county prison to give his opinion as to the sanity or insanity of prisoners, and he thought some arrangement might be made by which the benefit of the advice of the medical superintendents of the county asylums might be made available.

Dr. HACK TUKE said he entirely supported the motion in this way—that the surgeon in charge of the gaol should have sufficient knowledge of the disease to detect and diagnose the disease, which otherwise might entirely pass without his noticing it. It was different with an obstetric case, because although a prison surgeon might perhaps have to treat that, there would not be the same difficulty in diagnosis.

Dr. BUCKNILL asked if the President would think it worth consideration that the superintendent of the county asylum should be substituted for the neighbouring doctor in the council of three.

The PRESIDENT pointed out that the superintendent was already mentioned. His proposal was:—"The medical officer of the prison, the medical officer of the county asylum or hospital for the insane in the neighbourhood, and a physician of standing in the town where the prison is situate." With regard to the other resolution, it was only a suggestion, putting forward a motion for the consideration of the Association. The necessity for some knowledge might be supported by the writings of a prison surgeon of considerable eminence in Scotland, who said:—"From large experience among criminals I have come to the conclusion . . . . that the principal business of prison surgeons must always be with mental disease; that the number of physical diseases are less than the psychical; that the diseases causing death amongst prisoners are chiefly of the nervous system; and, in fine, that the treatment of crime is a branch of psychology."

Dr. GOVER said he should like to mention that there were two classes of prison surgeons, those who gave their whole time to the service and those who only gave part of their time. Those who gave the whole of their time were first employed as assistant surgeons. Every candidate for that post had to go up to a medical board, and a satisfactory knowledge of mental disease was one of the subjects of examination. That was only a comparatively recent arrangement. He thought that that would ensure sufficient knowledge on the part of those who gave their whole time to the service, and who gave their time as assistant surgeons, afterwards being promoted. As to the other class who gave only a part of their time, they were generally persons in practice in the neighbourhood of a prison which only required the services of a medical man during a part of the day, and the prisons of that kind being small, there were not many criminals there to pick and choose from. He thought it would require serious consideration to frame the proposed resolution. He could not agree with the statement which had been read that nervous diseases formed the greatest proportion of the diseases which the prison medical officers had to deal with.

The PRESIDENT said that he was not aware that what Dr. Gover referred to had been commenced. It seemed to be an advance upon the hitherto existing

state of things, and he thought that the plan would be found to answer, and that the amount of knowledge would be gradually increased, and would, in time, become sufficient for the purpose. Originally he said nothing more than that it was very desirable that the medical officers of prisons should possess a certain knowledge of mental disease, and in that Dr. Gover really seemed to concur.

Dr. BOWER said he should like to call the attention of members present to the system in force in Norway where in each of the four large public asylums there are what they call "observation wards" where prisoners suspected of being, or professing to be, insane are placed for a term of three months or less, so that the medical superintendent may be able by constant observation of the prisoner to pronounce authoritatively on his sanity or insanity. This would obviate the necessity of visiting surgeons of prisons having a special knowledge of mental disease.

Dr. YELLOWLEES said that he would propose the first resolution in reference to the prison medical officers. It simply said that it was very desirable that they should have a knowledge of insanity. He thought it extremely desirable that men having to do with prisons should know something about insanity.

The PRESIDENT said that now that Dr. Gover had told them that it did form a subject of examination, the expression of feeling already elicited would be sufficient.

Dr. YELLOWLEES then proposed the second resolution, as set forth in Dr. Orange's address.

Dr. HACK TUKE seconded the resolution, which he considered very important. He would lay considerable emphasis upon the words "as soon after the commission of the crime as possible." As regards the provision for three consulting together, he should be inclined to hesitate about that, because he thought the two first-named would be amply sufficient to carry weight in a court of law, but he knew it was felt by the President and some others that public opinion would not favour such a conclusion. The public would say that the officer of an asylum would be sure to make out that a man was mad, and therefore the opinion would not carry weight. It was therefore suggested that the third should be a physician of standing in the town, who would be supposed to have a less knowledge and no prejudice in favour of persons supposed to be mad. He believed that the practical effect of the resolution would be to prevent a large amount of provoking cross-examination which occurred under the present system. Practically, an opinion given by three competent medical men would carry so much weight that it would probably be conclusive. He felt very strongly upon this subject, and had read a paper some time ago upon "Experts and Criminal Responsibility" in which he urged some steps similar to these being taken. He then referred to both the points, and he was very glad to see them being put in the form of resolutions by the President.

Dr. GOVER asked Dr. Tuke in what cases would an examination be necessary?

Dr. HACK TUKE said that might be left to the discretion of the magistrate at the time. Mr. Flowers had told him that if there were some circumstances on the face of the case which suggested insanity he asked the police surgeon to examine the prisoner. He said he would be extremely glad if he could ask some one who had a more complete knowledge than a police surgeon might have. Then, there might arise circumstances afterwards which would necessitate such an examination. He would like to know the opinion of the President as to who would appoint these examiners.

The PRESIDENT replied that it would be either through the solicitors of the Treasury or the Public Prosecutor. No doubt some suitable mode would be discovered for doing it. Something similar was done and always had been done in very important cases where public attention was directed to the case, and it was only extending and systematizing a plan which had always been acted upon in the more notorious cases.

After some further discussion the resolution was agreed to, and it was resolved as follows.—

That prisoners suspected of being mentally deranged should be examined by competent medical men as soon after the commission of the crime with which they are charged as possible, and that this examination should be provided for by the Treasury in a manner similar to that in which counsel for the prosecution is provided. It is suggested that the examiners should be the medical officer of the prison, the medical officer of the county asylum or hospital for the insane in the neighbourhood, and a medical practitioner of standing in the town where the prison is situated; that the three medical men shall, *after consulting together*, draw up a *joint* report, to be given to the prosecuting counsel; the cost being borne by the public purse, inasmuch as it is useless to tell an insane man that the burden of proving himself insane lies upon himself.

The PRESIDENT stated that Dr. Cassidy had been good enough to exhibit several instruments of restraint which had been used in former times at the Lancaster Asylum.

A vote of thanks was unanimously accorded to the Royal College of Physicians for the use of the room, and the proceedings then terminated.

The members of the Association afterwards dined together at "The Ship" at Greenwich.

ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION, JULY 31ST TO AUGUST 3RD, 1883, AT LIVERPOOL.

SECTION G. PSYCHOLOGY.

The meeting of the Psychological Section was held under the presidency of Dr. T. L. Rogers, of Rainhill, and was for the most part well attended. Four meetings of the Section took place, and at each, in addition to miscellaneous papers, a special subject was introduced for discussion.

The "abstracts" sent in by the authors of papers, and of their speeches by some of the speakers, not being available, the following is merely an incomplete summary.

On Wednesday afternoon Dr. ROGERS opened the proceedings by the delivery of his very interesting Presidential Address.* Taking for his subject "General Hospitals and Hospitals for the Insane," he compared the respective rise and progress of the two classes of institutions, showing that up to recent times, at all events, the comparison was anything but favourable to the latter. He proceeded to point out the essential differences between asylums and general hospitals, and to remark on the limits within which the purely *medical* treatment of the insane might be beneficial, alluding also to the duties devolving on the asylum physician in consequence of the involuntary character of most of his patients. In conclusion, some good practical hints were given as to the indications for sending insane patients to be treated in an asylum, and reference was made to the social statistics of insanity.

A vote of thanks, proposed by Dr. PAUL, and seconded by Dr. SANKEY, was unanimously accorded to Dr. Rogers.

Dr. YELLOWLEES then introduced a discussion on the "Employment of the Insane." He advocated the discriminate occupation of lunatics in some well-selected form of industrial work as tending to promote recovery, or, in less favourable cases, as counteracting the tendency to mischievous excitement. He reprobated, however, indiscriminate so-called employment of patients merely for the purpose of swelling the statistics of nominal workers, pointing out that there could be no possible advantage in sending a patient to "shiver under a hedge" if it were impracticable or inexpedient to induce him to take part in field labour.

The discussion on this subject was sustained with considerable spirit, amongst the speakers being Dr. Rees Philipps, Mr. Cassidy, Dr. W. H. O. Sankey, Dr. Paul, Dr. Murray Lindsay, Dr. Savage, Dr. Shuttleworth, Dr. Bower, Dr. F. A. Jelly, Mr. Mould, Dr. Ireland, and Dr. Rogers, the general consensus of opinion being in accord with the remarks of Dr. Yellowlees. Amongst the points suggested were the introduction of musical drill as a recreative employment for

* Reported *in extenso*. "Brit. Med. Journ.," August 4th, page 232.

patients of the better class, and the advantage of making money payments to patients as a compensation for, and encouragement to, meritorious exertion in useful industry. Dr. Yellowlees replied.

Dr. F. A. JELLY subsequently read a paper on "Lunacy in Spain," giving an interesting sketch of a private asylum which he had visited there; and on this remarks were made by Dr. Rogers, Dr. W. Jelly, Dr. Yellowlees, and Dr. W. H. O. Sankey.

On Thursday morning Dr. JOSEPH WIGLESWORTH (of Rainhill) read a paper and introduced a discussion on the subject of "Bone-Degeneration in the Insane." Dr. Wiglesworth illustrated his views by means of a number of carefully prepared microscopical sections. Remarks were made by Dr. Rogers, Dr. Sankey, Dr. W. J. Mickle, Dr. Yellowlees, Dr. Jelly, Mr. Mould, Mr. Rooke Ley, and Mr. Cassidy.

Dr. WIGLESWORTH described osteo-porosis as occurring in several of the insane under his notice; and one speaker argued that not only did the bones suffer in the general defect of nutrition so common in the insane, but that in some cases there was a marked and special disorder of bone-nutrition.

Dr. Wiglesworth also exhibited microscopical sections of the brain from cases of general paralysis and of stupor.

Dr. WIGLESWORTH also read a paper on the "Pathology of Mania." Remarks thereupon were made by Dr. W. J. Mickle, Dr. Sankey, Mr. Bevan Lewis, and Dr. Rogers.

Dr. WIGLESWORTH replied.

The paper held that mania is a disease of the highest co-ordinating centres; the maniacal manifestations flowing from activity of lower centres which have escaped from the control of the higher; and hyperæmia of brain being secondary. The highest centres were hypothetically localized.

Dr. W. JULIUS MICKLE next read a paper on "Visceral and other Syphilitic Lesions in Insane Patients without Cerebral Syphilitic Lesions." Dr. Sankey, Dr. Rogers, Dr. Yellowlees spoke thereupon, and Dr. Mickle replied

The paper described a group of cases in the insane, in which there was no cerebral syphilis, although there was extensive visceral or bone or skin syphilis—or all these; and although in some cases the insanity had been attributed, and apparently due, to syphilis. These facts had a relation, in some respects complemental, to others mentioned in the paper.

On Thursday afternoon Mr. BEVAN LEWIS (West Riding Asylum) introduced the discussion on "Cerebral Localization in Relation to Psychological Medicine," by reading a paper descriptive of many cases, and dealing with the subject generally.

Dr. JAMES ROSS (of Manchester) followed, and referred to some cases in which localized cerebral lesion had co-existed with mental disturbance, alluding also specially to a case of fracture of the skull, in which conjugate deviation of the eyes was removed by trephining.

Dr. IRELAND complimented Mr. Bevan Lewis on the pains he had bestowed upon his paper, though he said he was somewhat disappointed that the author had, like Moses, led them within view (apparently) of the promised land, but had not taken them thereinto. He trusted, however, that Mr. Bevan Lewis might have a long life to follow up this most important subject, and if he succeeded in fixing a definite mental pathology upon the basis of cerebral localization he would indeed attain immortality. For his own part he had not seen in autopsies of idiots any cerebral deficiencies corresponding (on the theory of localization) to sensorial defects; and before assenting to the affirmative view he would very much like to hear disproved the negative instances published by Goltz and other eminent German observers.

Dr. W. J. MICKLE, criticized the conclusions of those physiologists who make extremely circumscribed and rigid localization of functions in the cortex of the brain, inscribing circles on brain-diagrams as enclosing parts devoted to this or that function; thought that while one cortical centre holds the leading place in regard to a given function, yet others are supplementary or accessory,

and, after destruction of the former, if retaining the necessary relations and connexions, are more or less educable, and take up, to some extent, the work of the part destroyed; spoke of the convenient propinquity of the several parts of the symbolic cortical area; and concluded by mentioning the different clinical course and accompaniments of similar lesions of the two cerebral hemispheres, and the non-symmetry of the exact disposition, and the unequal extent, of parts subserving similar functions in their two respective cortices.

Dr. FLETCHER BEACH drew attention to the agreement of mental characteristics which often coincided with similar defects of formation in cases of idiocy, and referred to the remarkably simple character of the cerebral nerve cells from deficiency of processes in certain classes; this simplicity perhaps accounting to some extent for the mental incapacity.

Dr. SHUTTLEWORTH referred to a case of microcephalic imbecility in which arrest of formation and development of the temporo-sphenoidal and occipital lobes coincided with congenital dulness of hearing (the auditory centre being placed by Ferrier in the superior temporo-sphenoidal convolution). In this case there were considerable powers of observation and of imitative movement, as in drill; and the frontal and parietal lobes were comparatively well developed.

Dr. Joseph Wiglesworth, Mr. Victor Horsley, and Dr. Sankey also took part in the discussion, and Mr. Bevan Lewis replied.

Dr. G. E. SHUTTLEWORTH (of Lancaster), next read a paper on the question "Is Legal Responsibility Acquired by *Educated* Imbeciles?" giving an account of the various views taken by legal authorities in the proceedings against an inmate of the Royal Albert Asylum, who, startled from his sleep by another patient, had knocked down the latter and unhappily fractured his skull (which was abnormally thin); the proof of the fact depending upon the evidence of other patients. The question of the admissibility of the evidence of educated imbeciles was considered, and their civil capacity and legal responsibility were discussed.

Dr. Ireland, Dr. Fletcher Beach, and Dr. Yellowlees made remarks upon this paper, the tenor of opinion being that whilst the question might be answered in the affirmative, there was need of caution in accepting the evidence of those who had been recognised as imbeciles, as they were not unlikely to be "tutored" to suit the views of unscrupulous persons. At the same time they might give very trustworthy evidence upon simple matters of fact recently occurring under their observation. As regards criminal responsibility the same rules which applied to lunatics also applied to imbeciles.

Dr. HUGGARD (of London) read a paper on "Definitions of Insanity," remarks on which were made by Dr. Rogers and others. Dr. Huggard pointed out the defects of some definitions, and made suggestions as to rightly defining.

On Friday morning (Dr. Yellowlees, Vice-President, taking the chair in the absence of Dr. Rogers), a discussion on "General Paralysis" was opened by Dr. W. J. Mickle; papers also being read by Dr. W. H. O. Sankey (of Shrewsbury) on the question "What Phenomena are Included in the Name of General Paralysis of the Insane?" and by Dr. G. H. Savage (of Bethlem Hospital) on "Some Cases of General Paralysis with Lateral Sclerosis of the Spinal Cord." A long and interesting discussion ensued, Dr. Cassidy, Dr. Oscar Wood, Mr. Rooke Ley, and Dr. Yellowlees being amongst those taking part, in addition to the readers of the papers.

Dr. MICKLE began his contribution by referring to the pathology of general paralysis, and the question whether it is inflammatory or degenerative; then took up the several forms of disorder of speech and of gait observed in it, with reference to their relation of dependence on lesions of encephalon, of medulla oblongata, or of spinal cord; and, finally, touched briefly upon treatment with potassium-iodide.

Dr. Sankey's paper dealt with the question whether there are not several kinds of cases, differing widely in symptomatology and morbid anatomy, included under the name of general paralysis; thus leading to much discrepancy as to the seat and pathology of the disease?

Dr. SAVAGE'S paper described cases of general paralysis with lateral sclerosis of the cord, as generally occurring in young single persons; the mental symptoms being early or late, and usually exalted; as usually accompanied with marked tremors of tongue and in speech, exaggerated reflexes, a bedridden state, contracted limbs, bedsores; grinding of teeth common, fits occurring or not. With it a wasted brain; excess of ventricular fluid; adhesions present or not, if present, comparatively slight; generally some wasting of special gyri. Question raised, Is the Lateral Sclerosis Primary or Secondary?

In the general discussion Dr. Yellowlees summed up the salient points of the three communications.

Dr. SAVAGE referred to the higher functions, as speech, being affected early in general paralysis.

Dr. OSCAR WOODS spoke of the comparative immunity of Ireland from general paralysis, and of syphilis as a cause.

Mr. ROOKE LEY brought forward examples in which there was no proportional relationship between the incidence of syphilis and of general paralysis on the population.

Dr. MICKLE, in closing the debate, agreed with what had been stated in reference to the early and marked impairment of the highest functions in general paralysis; and as to the desirability of subdividing the affection into varieties, and of excluding many of the cases which are often called general paralysis, alluding more particularly to some senile cases. In Dr. Mickle's experience general paralysis with lateral sclerosis of the cord had not occurred specially in young, single (*i.e.*, unmarried) subjects; among other points there were often some rigidity of frame and stiffness of limbs, spasmodic twitches and jerks of the limbs, spontaneously or on passive motion, jerky grasp, shaky speech, with much twitching of face and lips, as also on protrusion of the jerkily protruded tongue, often, also, paralytic and apoplectiform attacks, but not very frequently epileptiform seizures. Adhesion and decortication varied much in different cases, and from a slight to an extreme extent. Atrophy affected the gyri of the anterior more than those of the middle region of the brain-surface, and the central parts of the brain were softened in some cases. He believed that here the sclerosis is usually secondary.

The hour for closing the Section having now arrived, a paper by Dr. C. A. Mercier on "An Epidemic of Delirium" was taken as read; as was also a paper by Mr. J. H. Baker and Dr. W. J. Mickle on "Some Acts during Temporary Epileptic Mental Disorder." We hope to publish, in the next number of the Journal, several of the papers read at the Liverpool meeting.

On the invitation of Dr. Rogers some thirty members of the Association (for the most part connected with the Psychological Section) visited the Asylum at Rainhill on Friday afternoon. They were conducted through the wards by Drs. Hickson and Wiglesworth, and afterwards had the opportunity of inspecting the extensive *annexe* now in course of construction.

ASYLUM BENEFIT CLUB.

Mr. Millard, of the Eastern Counties Asylum for Idiots, informs us that a Benefit Club is now in operation, upon a very liberal basis, in connection with the Eastern Counties Asylum for Idiots, Colchester. It provides help in sickness and an annuity at the age of 65 years, or earlier if members are permanently disabled. About fifteen years since, the Superintendent foresaw the difficulty of providing pensions to superannuated attendants, nurses, and servants out of the regular income of the charity. He therefore asked the Board of Directors to establish this Club, to which they agreed, and voted part of the

proceeds of a bazaar as the commencing capital, which was supplemented by a donation of £100 from a generous member of the Board, who has ever since been an annual subscriber of two guineas to the honorary fund. Very few parties connected with the Asylum became members of the Club, partly because the premiums were high in proportion to their wages, but principally because if they left the Asylum they ceased to belong to the Club, and only three-fourths of their money would be returned. The capital of the Club became so augmented by accumulation, that last year the Board were enabled to re-arrange the rules upon very advantageous terms, with the proviso that the Club must be limited to 18 members until the capital is still further increased. Unless the annuity payable at the age of 65 years has been commenced, all the money paid by any member is *returnable* at any time, less benefits received, and if death should occur the money is payable to the executor or nearest relative, so that the Club acts as a savings' bank without interest as well as an insurance society, providing for sickness and old age. The pension is doubled out of the honorary fund if the parties have been members for a period of ten years and have paid the full premiums. Ten members may be admitted, and pay only three-fourths of the premiums, thus rendering the payments easy; but the pension is not doubled out of the honorary fund as when the full premiums are paid.

It is very desirable that some such club should be provided in all voluntary institutions or private asylums, and the wages should be sufficiently high to allow of the premiums being paid without difficulty. The certainty of having provision during sickness and in old age would relieve anxiety and encourage cheerful service. Pensions are granted in borough and county asylums after a certain length of service, and similar provision is needed for other asylums.

"AFTER CARE" ASSOCIATION.

The annual meeting for 1883 of the "Association for the After Care of Poor and Friendless Female Convalescents on leaving Asylums for the Insane" was held on 5th July at 20, Eaton Place, by kind permission of Lord Cottesloe.

There were present the Earl of Shaftesbury (President), in the chair, Lord Cottesloe, Dr. D. Hack Tuke, Dr. Claye Shaw, Dr. Edgar Sheppard, Dr. Seward, Miss Fremantle, Miss A. Gladstone, Mrs. Ellis Cameron, and others.

The minutes of the last meeting having been read and confirmed, the Rev. H. HAWKINS, Hon. Sec., read the report of the past year, in which some cases relieved were noted. Particular mention was made of the formation of an "After Care Ladies' *Working Society*," for the assistance, by grants of clothing, of indigent convalescents. The foundress of the Society is Mrs. Richardson, Parkwood House, Whetstone.

Dr. T. C. SHAW, Hon. Treasurer, gave an account of the financial position of the Association. Its funds were slender, but whatever good had been effected had been accomplished almost without resort to the money in hand.

Mrs. ELLIS-CAMERON gave a short address, indicating ways in which the work of the Association might be expanded, and expressed willingness to continue temporarily to hold the office of Secretary of the Ladies' Committee, and to receive periodical meetings at her house.

The Earl of SHAFTESBURY spoke words of encouragement with respect to the genuine need of such an Association, and to its ultimate acceptance, and he also referred to his association for 53 years with lunacy work.

Dr. D. HACK TUKE, Dr. EDGAR SHEPPARD, and Dr. SEWARD addressed the meeting.

Thanks were proposed to the Earl of Shaftesbury and Lord Cottesloe, and the meeting separated.

THE "OPEN-DOOR" SYSTEM AND THE RISK OF PROSECUTION.

In May last a female patient escaped from the Lenzie Asylum, Glasgow, through an unlocked door, and was killed—whether suicidally or not is unknown—on the railway near the Asylum.

The Public Prosecutor for the County has intimated to the Asylum authorities that if such an accident occurs again it may be his duty to institute an investigation as to whether there has not been culpable negligence in the custody of the lunatic; and the husband of the deceased woman has, we observe, raised an action against the managers of the Asylum for damages for the loss of his wife. The managers have compromised this action by a payment of £50 to the husband. A very serious question is thus raised, and one which involves the increase of the already sufficiently heavy risks and anxieties of asylum physicians. We believe that during the last year the number of suicides in Scotch Asylums has been unusually large. Is this a mere coincidence, or is it associated with the granting of a greater amount of liberty?

CHANGES IN THE LUNACY BOARD.

Early in July Dr. Nairne, who had held the appointment of Commissioner in Lunacy since 1857, resigned his seat at the Board. The vacancy was so quickly filled up that the resignation of Dr. Nairne and the appointment of his successor, Dr. Reginald Southey, of London, were announced at the same time.

We are sure that the best wishes of Dr. Nairne's numerous friends attend him in his retirement from his very protracted term of service.

Obituary.

B. H. EVERTS, M.D.

Doctor B. H. Everts died at Arnhem, on the 2nd of July, 1883.

He was born in 1810, and after having passed through a grammar school took his degree at the University of Leyden. His medical studies were interrupted in 1830 by the war with Belgium; he joined the corps of volunteers formed by the Leyden students. After having taken his medical degree he settled at Deventer, and there held the position of Superintendent of the Lunatic Asylum (1844).

The provincial government of North Holland having resolved to build an asylum, Everts was appointed to be Medical Superintendent, and he devoted the time between 1847, while Meerenberg was being built, and 1849, when it was opened, to visiting several foreign asylums.

In England he was greatly interested in the non-restraint system, and it was only natural that his humane nature warmly supported it. The result was that he decided upon introducing it into the Meerenberg Asylum, and thanks to his care this was the first asylum on the Continent of Europe where it was introduced. We were much pleased with his asylum in visiting it in 1853.

It may be said that he loved his work and his patients, and to his attachment to them, it must be ascribed that he refused a call to Amsterdam where a chair of pathology was offered him.

Dr. Everts resigned his position as Superintendent in 1874, and spent the rest of his days at Arnhem.

In him the profession loses a devoted member.

ROBERT BOYD, M.D. Edin.

On the 14th of August, 1883, at his Private Asylum, Southall Park, Middlesex, in the fire by which the building was destroyed, Dr. Boyd, aged 75.

Dr. Boyd was the son of Captain William Boyd (South Devon Militia), and

was born Nov. 24, 1808, at Tullamore, King's Co., Ireland. He was M.D. Edin. 1831, L.R.C.P. Lond. 1836, F.R.C.P. 1852. He was formerly Lecturer on Medicine at the Charlotte Street School of Medicine, and Resident Physician at the Marylebone Infirmary, which he left June, 1847, on his appointment to the Somerset County Asylum. He resigned in 1868, leaving Wells in July. He took Southall Park Asylum January, 1874. He survived his wife only a few months.—(*See Occasional Notes of the Quarter.*)

Correspondence.

To the Editors of THE JOURNAL OF MENTAL SCIENCE.

GENTLEMEN,—The proposal of Dr. Ingleby to lift the floor of the chancel of the church of Stratford-on-Avon, where Shakespeare is known to lie, has aroused some ill-considered objections from the daily newspapers, some of which threaten "a storm of indignation" against all who wish the project carried out. It is one which I have often talked about to my friends, and which I have even thought of proposing in your Journal, so I hope that you will allow me to bespeak the influence of scientific men in support of Dr. Ingleby and those who are disposed to take his part.

In spite of such words as "bad taste," "sacrilege," and "desecration," I do not believe that any person within the British Isles would shed a single tear, or eat an ounce less of beef and potatoes, or drink a pint more beer, because a few stones were lifted in the floor of the church and the light of day allowed to fall on the honoured bones of the great dramatist. The argument most likely to tell with the public is that Shakespeare himself, in the doggerel rhyme inscribed on his tomb, requested that his bones should not be moved. In a life of Shakespeare in my copy of his works, published twenty-four years ago, the following commentary is made :—"It is uncertain whether this request and imprecation were written by Shakespeare or by one of his friends. They probably allude to the custom of removing skeletons after a certain time and depositing them in charnel houses, and similar execrations are found in many Latin epitaphs." This simple observation disposes of all the arguments drawn from the inscription. To all appearance Shakespeare was quite unconscious of the immortality he had gained. Assuredly he never considered the question whether he ought to forbid that his cranial outline should be examined hundreds of years after in order to repair the neglect of his contemporaries, who have left us in doubt as to what he was like when he lived.

It seems to me that the two portraits of Shakespeare presented in engravings are taken from two different men, one a very handsome and fine face, somewhat like a Spaniard, the other a much more English looking countenance, resembling the bust on the wall of the church. Of this bust we are neither sure that it was taken before Shakespeare was buried, nor that the sculptor could be trusted to make a good likeness. There is no doubt that his bones might be identified, when measurements and observations could be made that would be useful in deciding which of the portraits most resembled the illustrious dead. In the name of common-sense, what is there in Shakespeare dead that his remains should be for ever kept under an opaque slab of sandstone, never to be seen by the living even for a few hours, when anyone dwelling in London at the beginning of the seventeenth century might see him on the boards of the Globe Theatre for a few pence? A few years ago the grave of Dante was opened, and anthropologists now know the capacity of the cranium and the probable weight of the brain of the great Florentine.

The body of Richard II. was examined, and the story of his being brained by a pole-axe proved to be untrue. The remains of Charles I. were also examined, and the decapitated head was found to retain a striking likeness to the well-known portraits of Vandyke. And what are Richard II. and Charles I. to us

compared with Shakespeare? Save a very few, the dead are dead; their memories buried amongst the dead who once lived with them. Heine said, "I live and am stronger than all the dead." Shakespeare might say, "I am dead, and yet I am stronger than all the living." There are more plays of Shakespeare acted than of any living dramatist. It is for this reason that we are so anxious to snatch from the grave something more about Shakespeare, and this is called sacrilege. Is there one living who ever struggled for fame, or breathed a hope that men will not forget him in his grave, who would not feel it as an honour given to few amongst the sons of men to know that 267 years after he was laid to rest, those who kept alive the lamps of learning and of science would desire to lift his remains for a day in order to measure the capacity of his skull, and to ascertain whether there was anything to be observed in the structure of the bony case which contained a brain from which came manifestations of unapproachable mental power? And with what disgust and aversion would he look down upon the dull and ignorant writers in the daily journals of the year 2150 who would try to represent such an act of homage to his genius as a piece of sacrilege?

It seems to me likely enough that Dr. Ingleby's proposal may be put off till a more educated generation appears, unless the public are made clearly to understand the advantages its adoption would give to the study of craniology. I should therefore hope that the members of our Association will exert themselves to prevent the public being misled.

I am, yours, &c.,

Preston Lodge, Prestonpans, 10th September, 1883. WILLIAM W. IRELAND.

Dr. Ireland's forcible appeal is in the name of science, not sensational curiosity.—[EDS.]

Appointments.

EVANS, D. T., M.R.C.S., appointed Assistant Medical Officer to the Three Counties Asylum, Beds, *vice* E. C. Rogers, M.R.C.S., resigned.

EWART, C. THEODORE, M.B., M.Ch., appointed Assistant Medical Officer to the Fisherton House Asylum, Salisbury, *vice* W. G. Coombs, M.D., resigned.

LEGGE, R. J., M.D., appointed Assistant Medical Officer to the Derby County Asylum, *vice* W. W. Horton, M.B., resigned.

BENHAM, H. A., M.D., appointed Assistant Medical Officer to the County Lunatic Asylum, Stapleton, near Bristol, *vice* R. Fullerton, M.B.

GIBBON, WM., L.K.Q.C.P.I., appointed Junior Assistant Medical Officer to the Joint Counties Asylum, Carmarthen.

MACDONALD, PETER WILLIAM, M.B. and C.M. Univ. Aberdeen (late Assistant Medical Officer to the Cheshire County Asylum, Macclesfield), has been appointed Assistant Medical Officer to the Dorset County Asylum, *vice* W. H. Gillespie, L.K.Q.C.P.I., &c., resigned.

CLAPP, ROBERT, L.R.C.P.Lond., M.R.C.S., has been appointed Assistant Medical Officer to the Devon County Lunatic Asylum.

GIBB, WILLIAM, M.B., C.M., has been appointed Assistant Physician to Woodilee Asylum, Lenzie, *vice* John Keay, M.B., C.M., resigned.

MOORE, E. E., M.B., has been appointed Resident Medical Assistant to Down District Lunatic Asylum.

BRUNTON, CHAS. EDW., M.B. Cantab., M.R.C.S., has been appointed Assistant Medical Officer to the County Lunatic Asylum, Colney Hatch, *vice* Brown, resigned.

WILSON, GERALD BARRY, L.K.C.P.Ed., L.R.C.S.Ed., has been appointed Second Assistant to the Resident Medical Superintendent of the District Lunacy Asylum, Cork.

BARNES, J. J. F., F.R.C.S., appointed Assistant Medical Officer to the Fisherton House Asylum.

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PART 1.—ORIGINAL ARTICLES.

The Special Training of Asylum Attendants.

By A. CAMPBELL CLARK, M.B. Edin., Medical Superintendent of the Glasgow District Asylum, Bothwell.

Read at the Quarterly Meeting of the Medico-Psychological Association, held at Edinburgh November 16, 1883.

Seven years ago Dr. Clouston read a paper to this Association "On the Question of Getting, Training, and Retaining the Services of Good Asylum Attendants." Such a paper could scarcely fail to attract considerable notice and elicit a very hearty discussion, for the subject is one of far-reaching importance to us as asylum physicians, and of very great moment in the interest of the insane. To get the best raw material possible, and to manufacture out of it the best asylum attendant possible, were two great aims suggested by Dr. Clouston, and the subsequent discussion of his paper showed that the Association was fully alive to these, and the serious obstacles which lay in the way of their accomplishment. If the aims here indicated should be more fully realised in the future than in the past, we will probably find that the third *desideratum*, viz., the keeping of our attendants for a reasonable length of time, will be realised in like proportion as the others. We all willingly admit that the first serious difficulty is how and where to get them. What will attract the best raw material into the asylum market? or, putting the question in a negative way, what is it that does not attract the best raw material into asylums? These questions will admit of a variety of answers, many having their root in the idea of non-respectability. Undoubtedly the status of an attendant is at present an inferior one in the industrial scale. Some common popular notions are that the rougher and stronger the material the better is the attendant; that it is not a trade for men, and

is suited only for the coarser types of women; that it leads to nothing reliable or desirable as a permanent occupation; and that as a life-work it is not sufficiently respectable to satisfy an average ambition. These and other considerations materially affect the supply of good attendants. Seeing, therefore, that in attendants themselves we find the best advertisement, and through them may command the highest success, it is worth considering, whether or not it is possible for us to advertise asylums, in such a way as to attract to them the better raw material which we crave so much after, and which we need so much. If the public mind must be educated to better purpose we must go upon *a new tack*. We shall require to bring more elevating influences to bear upon our attendants. In raising their social and industrial status we shall raise them in the estimation of the public and themselves, and may reasonably expect a more marketable article by-and-bye. It is surely fair, in the interest of all concerned, that attendants should receive from us the best possible training of which they are capable. There is reason enough for it in this, that as medical helps they will then develope more fully, and their work will become a life-work worthy of the name.

For me the subject possesses a more than usual interest, and the interest seems to grow with the progress of time. My experience of asylum life has been a peculiarly varied one, and circumstances have favoured my viewing this question from many standpoints. Having been officially connected with five different asylums, and having occupied several lay as well as medical positions, you will, perhaps, allow me to-day to take up the subject where Dr. Clouston left off, and on behalf of attendants to plead for an organised scheme of special training. In a very few words I shall tell you how I became impressed with the necessity for such a scheme; in the second place, how, at the Glasgow District Asylum, a limited scheme developed itself and the results of it; and in the third place I shall plead for a more extended application of the system.

My first thought on the subject arose from observations made in the company of attendants themselves. There was abundant evidence that however mechanical they may be in the performance of their duties, in their hours of leisure they do not evince any apathy in the exercise of their brain functions. Personal feeling does at times interfere with a just appreciation of their patients, but they often exhibit an unskilled cleverness in diagnosis, and give proof of an interest which might well be fostered for medical purposes. To hear

these men and women discuss their surroundings, criticise their superiors, and venture crude theories regarding individual patients was to realise more forcibly than I can tell you the abundance of raw material ready to hand that might be rendered more productive if only some trouble were taken with it. Three things were patent to my observation—*first*, that too great a barrier existed between officers and attendants; *second*, that the mental and moral qualities of attendants were not utilised so fully as they might be; *third*, that attendants require to be individualised as well as patients. My opinions were, however, wanting in shape, and my position did not permit of their being ventilated. It was, therefore, with very great pleasure that I learned of Dr. Clouston's more matured ideas in the same direction, and perused his paper on the subject. The Association expressed their approval of Dr. Clouston's endeavours in a practical form by appointing a Committee of three members to report to the next annual meeting "on the advisability of forming an association or registry of attendants in connection with this Association, and the best manner of carrying it into effect." I have not yet learned, however, that the labours of the Committee are ended, and therefore presume that their report is not yet submitted. I have reason, however, to know that Dr. Clouston's ideas and aspirations have expanded during the last seven years; and to his encouragement and help I am mainly indebted for the success, such as it is, which has attended my own endeavours to bring the problem nearer solution.

Two and a half years ago, when the new asylum at Bothwell was opened, we admitted in rapid succession a number of female patients suffering from serious bodily disease. Gladly availing myself of the abundant indications for treatment afforded by them, I at once enlisted the services of the matron (who had been specially trained to hospital work) and of an attendant who had been trained in a London hospital. Without much difficulty we individualised several interesting cases in a way that stirred up a wholesale envy among the other attendants. The latter felt keenly their ignorance and inaptitude for scientific nursing, but they evinced a desire to learn, and we were not slow to teach them. In going round the wards every hint or scrap of information was welcomed by them. They began to share with me an interest in individual cases, and they soon took pleasure in storing up medical news for me at next visit. This new-born zeal rather staggered me at first. It either proved that I had got an exceptionally good staff of

female attendants or that attendants as a class had been too much ignored. Several of them had seen service in other asylums, and therefore I conclude that they could not be much above the average. It rather appeared that they had been too much left out in the cold. I did not, however, jump to the conclusion that the success of the scheme was assured. My feeling was still one of hesitation, and the subject of a course of lectures was broached with some doubt as to the result. When the edge of novelty wears off will the scheme collapse? Will the failure be due to the attendants or to myself? These were the questions which now puzzled my brain. To give a lecture, even to attendants, was to me a serious contemplation. "Well begun is half done" became my motto, and the lectures were started. It may be of interest, and possibly of use, to mention briefly how the course was conducted. It was found convenient to write on the black-board an abstract of each lecture before its delivery. The attendants were allowed half an hour to copy this abstract, and thereafter about half an hour was taken up in discussing the several heads of it *seriatim*. In this way the class was able to devote its whole attention to the lecture without the distressing interruption of having to take notes. This plan succeeded fairly well, though I am free to admit that the preliminary note-taking involved a severe strain on some attendants. A printed abstract would obviate this, and make the lectures much more enjoyable. Diagrams were freely had recourse to, and proved exceedingly useful. Two written examinations were held. At these the questions were stated in as homely language as possible, and a few blank lines were allowed after each to give room for the answers. The following are examples of questions:—(1) What is the meaning of the word function? Show by an example that you understand it. (2) What should be done with an epileptic when he is seized with a fit? State your reasons. (3) What risks does an epileptic run? Other questions were suggested by lectures on general paralysis, puerperal insanity, the treatment of epilepsy and epileptic insanity, the treatment of bed-sores, &c. The result of these examinations was an agreeable surprise, and it was also a disappointment to me. The more practical questions were answered rightly or wrongly by every one. The anatomical and physiological ones were answered by only about one-half of those present, and the answers were fairly good. The number of lectures was 18 (14 being for mixed classes), and the average attendance was 20 out of a staff of 26, the de-

faulters being non-residents and tradesmen. It was not made compulsory. The attendance at examinations was—first examination, 15; second examination, 17. Attendance at 14 lectures, and 65 per cent. or over entitled to a first-class certificate. Attendance at 12 lectures, and 35 per cent. or over entitled to a second-class certificate. The results were as follows:—Seven received over 65 per cent.; four received under 65 and over 35 per cent.; and eight received under 35 per cent. The failures were chiefly among the males, and this in spite of the energetic support of the male officers. They were often due to sadly deficient education, rarely to want of natural ability, though sometimes to want of ambition. Lastly, they were due to exigencies which contrasted the male department unfavourably with the female department. At the same time I was forced to the conclusion that many of the lectures had been aimed too high, but nevertheless a careful analysis of the results encouraged me to persevere when the next winter came, and to try a more generally practical style. Meanwhile the training did not stop here. Lectures alone would, comparatively speaking, be barren and unfruitful, and it became my aim, so far as the time at disposal permitted, to follow them up with ward teaching. This, for reasons obvious, probably, in many asylums, was more easily started in the female wards; indeed, for cases of special interest the male wards, except the sick ward, have been somewhat neglected in this respect. The attendants have been trained and encouraged to write brief notes of individual cases under the direction of the officers and myself, and interesting symptoms are pointed out from day to day during the visit, and indications for special vigilance or new treatment demonstrated. The male attendants are often glad to be helped in the same way, and facilities were especially afforded in the case of the sick ward attendant and the night attendant. The study of general paralysis and epilepsy, for example, furnished frequently a topic of discussion and original remark among the men, and they have occasionally directed my attention to symptoms which I had not previously observed, and are encouraged to ask questions regarding their cases.

The second course of lectures was attended with unabated punctuality and interest. The interest, indeed, was greater—perhaps because the lectures were plainer, more easily grasped, more easily applied to individual patients, and, in a word, more utilitarian in their scope. The first compared the attendant of the past with the attendant of the present and the possible

attendant of the future, and mentioned the various qualities which would fetch a price in the asylum market of to-day. It endeavoured to show them the value of a special training, and to stimulate them to make their work something more than mere mechanical drudgery. Lectures followed on the bodily diseases common in asylums, those that could be guarded against, and the means that lay ready to hand for this. One lecture was devoted to delusions, hallucinations, suicides, and homicides, another to asylum accidents treated in detail, to bed-sores, bathing and its dangers, &c. One more illustration will suffice—it was a lecture on Waste and Repair and Sleep, with special reference to asylum practice. The delivery of the second course gave me greater satisfaction, and I felt that I had hit the right nail on the head this time. Prizes were offered for the three best essays on hallucinations, each essayist to select three patients as a basis. Three men and five women responded, and Dr. Clouston kindly decided their respective merits. The examinations were well attended, and the result was most gratifying. Five females and four men got first-class certificates, one female and three men got second-class certificates.

While observing the educational and strictly medical advantages of the scheme, we must not fail to realise that it is an agency capable of working good social results as well. Informal club meetings were held among the attendants themselves. The lectures and their application to particular patients were there fully discussed, and thus a kind of mutual improvement society was established on both sides of the house. This must be admitted, therefore, to have an elevating social influence. A keen rivalry existed between the two sexes, not always free from jealousy and bad feeling, but these were less conspicuous last session, and further experience will probably find them less conspicuous still.

Unfortunately we see a good deal of such in our student days, and can scarcely be hard on our officials when they exhibit a kindred spirit.

Thus far we have been pioneers in this new venture, but isolation must ere long sap our vitality, for only in union is there life and strength. Therefore I come here to-day to plead the cause of our attendants, to ask the Association to promulgate what has been done, and to encourage renewed effort in the same direction. In putting forth this plea I am fortified by the knowledge, that several asylum physicians have been led by observation and experience to anticipate its

necessity; by the growth in my own mind, through several years, of the conviction that a scheme of special training will materially advance asylum practice; and by the experience which I have just detailed of how far we can calculate on the co-operation and intelligence of attendants themselves.

I hope the Association will speak in this matter with no uncertain sound; that it will put its hand to the plough with the determination not to look back; and that it will foster to the utmost of its power a scheme that, if well-advised and wisely guided, must surely give a powerful impetus to the practice of psychological medicine. To prove this new departure, and to determine for certain whether it is a good, solid, sensible thing or a mere bubble, it is necessary for us to enter into combination. Considering that so much has already been done, it seems only fair to give it an honest trial, and thereby let it stand or fall. This means that in the first place we must move our asylum superintendents. I admit that this is a serious consideration, and my expectation for some little time to come is not over sanguine; but I am not to be disappointed by further obstacles, and in the meantime pin my faith to some asylum superintendents and to many assistant medical superintendents. To the latter there is one word worth saying, and it is this: that to them very especially the scheme offers personal advantages, and they can aid very effectually in consolidating it. They will find that not only are their case-books very much the better for it, but that they themselves have acquired methodical habits in the study of cases; that their knowledge of insanity is wider, better formulated, and more concrete; and that they have learned to lecture with ease and fluency.

I have one more argument with which to enforce my plea, and it is this: that we are becoming more and more fully impressed with the idea that the asylum of the future will partake largely of the hospital type. Our knowledge of insanity and its appropriate treatment is growing apace. Consciously or unconsciously we are individualising more. Instead of trusting to the precarious chance of asylum routine effecting a cure, we are more fully alive than ever to the merits of a special study and a special course of treatment for our new cases; and the asylum physician is often gratified by results which he can claim for his own hand alone. It is a triumph of science, a triumph of skill; and if he reflects on the stages which led up to it, he is struck with the fact that the institution appliances on which he depended were more those of an

hospital than an asylum. And here is the main-spring of a new idea. He determines that the new wing on the male side must be an hospital in the best sense of the term. The hospital is constructed; it realises every hopeful expectation, and then the principle is extended to the female side with a like happy result. But still this ambitious man is not satisfied; there is just one screw loose. The attendants are not sufficiently trained and elevated to fit into the new order of things. The moral of this is obvious. If our asylums are to be more like hospitals, our attendants, like hospital nurses, must be specially trained.

And now, in conclusion, perhaps you will allow me to offer a few suggestions for the future of such a scheme—suggestions which may help to lift it on to another and surer basis, and which I hope you will endorse to-day :—

First.—I would suggest that by authority of the Medico-Psychological Association a simple and merely tentative arrangement should be come to whereby those superintendents who are willing to give the experiment a fair trial shall enter into a combination for two years at least.

Second.—That this combination shall merely experiment to the extent of supplying a special training, not compulsory, consisting of lectures in winter and ward teaching so far as the exigencies of their respective asylums will allow, and also to the extent of furnishing a special certificate, first, second, or third class, according to efficiency and duration of service.

Third.—That a register of attendants who have received certificates be printed and circulated at the end of two or three years, by authority and at the expense of the Association.

Fourth.—That the gentlemen forming the combination constitute a Committee, empowered to make arrangements and rules for the carrying out of such an experimental scheme.

My ideas go much further than this, but it is wiser to take one step at a time, and thus safely float the venture. I may here state that Dr. Clouston requests to have his name put down as one of those desirous of entering into combination in a manner such as has been indicated, and it is perhaps needless to say that I follow suit. If the body psychological will now take the matter under its wing I shall be glad to give what help I can.

Is Legal Responsibility Acquired by Educated *Imbeciles?* *

By G. E. Shuttleworth, B.A., M.D., &c., Medical Superintendent, Royal Albert Asylum, Lancaster.

Read at the Section of Psychology of the British Medical Association Annual Meeting at Liverpool, August, 1883.

The question of the legal responsibility of the insane has been frequently under discussion both by legal and medical writers; and its conditions and limits must, I fear, still be regarded as far from settled; divergent views being held, perhaps naturally, according to the standpoint respectively taken up by the lawyer and the physician. "A lawyer, when speaking of insanity," says Sir J. F. Stephen, "means conduct of a certain character; a physician means a certain disease, one of the effects of which is to produce such conduct." It is somewhat remarkable that the legal responsibility of the idiot, and of his milder congener, the imbecile, has hitherto hardly been deemed worthy of discussion; but a recent law case, in which several patients under my care were concerned, has led me to think that a few remarks on the subject may not be altogether uninteresting or unprofitable.

It would seem that the earliest legal definitions of madness correspond rather with the mental states now known as amentia and dementia than with the acute forms of insanity. Thus Bracton in the thirteenth century speaks of a madman (*furiosus*) as "one who does not understand what he is doing (*non intelligit quod agit*), and, wanting mind and reason, differs little from brutes." Littelton "explaineth a man of *no sound memorie* to be *non compos mentis*." Sir Edward Coke, commenting on the above, is the first to recognise different classes of mental unsoundness, describing four kinds of men who may be looked on as *non compos mentis*. † "1. Ideota, which from his nativitie by a perpetuall infirmitie is *non compos mentis*. 2. Hee that by sickness, griefe, or other accident, wholly loseth his memorie and understanding. 3. A lunatique that hath sometimes his understanding and sometimes not, *aliquando gaudet lucidis intervallis*, &c.; and lastly, Hee that by his own vitious act for a time depriveth himself of his memorie and understand-

* Throughout this paper the term *imbecile* is used to denote a person suffering from mental deficiency, either congenital or supervening in infancy, the degree of such deficiency being less than that denoted by the term idiocy.

† "Coke upon Littelton," 247A.

ing, as hee that is drunken." The first two classes are indeed in old writers both described under the name of *idiot*; No. 1 being *idiota a nativitate*, and No. 2, *idiota a causâ et infirmitate.* I note in Paris and Fonblanque's "Medical Jurisprudence"* cases cited in which it had been stated "that an inquisition finding that a person had not had any lucid intervals *per spatium octo annorum*, was a good finding of *idiocy*," *lunacy* being evidently regarded as possessing different characteristics from *idiocy*. It was reserved for a later age legally to confound and confuse under the common designation of *lunatic* "any person found by inquisition idiot, lunatic, or of unsound mind, and incapable of managing himself and his affairs" (16 and 17 Vict., c. 70, and 25 and 26 Vict., c. 86). Henceforward the essential difference between the imperfect and ill-ordered mental action of idiocy and the deranged and disordered mental action of insanity seems to have been somewhat lost sight of in the course of legislation; in some sense, indeed, idiocy may be likened to the Cinderella of the unhappy family under the jurisdiction of the Lunacy Commissioners.

Notwithstanding this confusion it would seem that there still lingers in legal authorities some notion of the idiot's individuality. Thus in a recent case of homicide, the proof of which, so far as eye-witness was concerned, depended upon the testimony of imbeciles,† "Archbold's Criminal Pleading" was quoted to the effect that "an *idiot* shall not be allowed to give evidence, but a *lunatic* during a lucid interval may." The case referred to was that of an imbecile lad, an inmate of the Royal Albert Asylum, who, having been startled and provoked by a younger patient suddenly denuding him of his bedclothes, jumped out of bed, knocked down his assailant, and bumped his head against the floor with such effect as to cause death from fracture of the skull, which was abnormally thin. The attendant was temporarily absent from the dormitory on a necessary duty, but the affray was witnessed by several imbecile boys who were awake at the time, and, of these, three, who seemed best able to give an account of what they had seen, were tendered as witnesses at the coroner's inquest. The Coroner (Lawrence Holden, Esq.), in opening the enquiry, said: "Some of the evidence would be peculiar in this respect—that they would have to rely on the evidence of boys who were imbecile if not idiotic. If the doctor, who would be called before them,

* "Medical Jurisprudence," Paris and Fonblanque (London, 1823), Vol. i., p. 290.
† "Archbold, C. P.," p. 288.

said that the boys who witnessed the transaction were able to give evidence, he (the Coroner) should receive that evidence. It was for the Coroner to admit such evidence as he thought proper, and it was for the jury to decide afterwards upon the amount of credibility they would attach to that evidence." Accordingly as each imbecile witness was tendered for examination I was called on to state that in my opinion he was "capable of judging between truth and falsehood, and able to give credible testimony." Three imbecile lads were consequently allowed to give evidence, and in one case in which speech (owing to partial paralysis) was indistinct, I was permitted to act to a certain extent as interpreter, the Coroner being also good enough to accept some of my suggestions as to the form in which his questions would be most intelligible to the witnesses. Under these circumstances the evidence of the lads, who were sworn in the usual way without special interrogation as to their views of an oath, was sufficiently clear and consistent to obtain credibility from the jury, who accordingly returned a verdict of manslaughter against the accused.

At the magisterial inquiry which followed at the County Petty Sessions, the competency of the imbecile lads to give evidence was objected to by the solicitor for the defence, who quoted from Archbold the dictum that "an idiot shall not be allowed to give evidence," (this being founded upon "Coke upon Littelton," 6 B), and maintained that in the absence of any precedent to the contrary "a boy coming from an asylum for idiots could not give reliable evidence." Fortunately the Bench was particularly strong in legal acumen, amongst the sitting magistrates being W. H. Higgin, Esq., Q.C., and E. B. Dawson, Esq., LL.B., both members of the Bar. The former, while admitting a *primâ facie* objection to the competency of a boy coming from an idiot asylum, said that, nevertheless, if he should be found on examination "to believe in the existence of a God, and to believe in a future state either of reward or punishment; if he knew what telling an untruth was, and if in kissing the Testament he knew what that kissing meant, although that boy did come from an idiot asylum still he might be a perfectly competent witness." Mr. Dawson remarked "that the authorities quoted by the solicitor for the defence were old ones, though they might be very good for the time in which they were written, when it was considered that a person suffering from amentia could not be a credible witness nor his position improved; but they knew that by the care which had been bestowed in recent years upon such persons, a degree of

information had been imparted to them that they might be accepted as competent witnesses. The question was whether they should go back to the days of Coke and Littelton, and be ruled by their judgments which were given according to the lights they then had." Ultimately it was decided to follow the procedure in the case of Reg. *v.* Hill, and I was examined as to the first witness's information as to religion and the nature of an oath, and also as to the degree of his mental deficiency. I was able to say that he knew it was wrong to tell a lie, as he had stated to me that persons who told lies after kissing the Testament were (to use his own words) first "shut up in the Castle, and then if they died went to the old fellow with the fork!" Interrogated as to whether the boy was admitted into the asylum as an *idiot*, I explained that he was an *imbecile* of a comparatively high degree of understanding, and not an *idiot* in the sense of being entirely destitute of intelligence. He could now read and write imperfectly, and was a capital workman in the joiner's shop, though only fifteen years of age. Thereupon the lad was called into the box, and a number of questions were put to him by the Bench and through the honorary solicitor of the Asylum with a view of ascertaining how far he understood the nature of an oath. These questions being addressed to him by persons with whose converse he was unfamiliar, were evidently not fully comprehended by him. To the question, "What do you mean by an oath?" no intelligible answer was given; but when by way of explanation he was asked, "Can you tell us anything about swearing?" the reply, "It's what bad lads do," argued, I think, some acquaintance with the third commandment! In the result the magistrates ruled that in consequence of the unsatisfactory replies of this lad to their interrogatory, his evidence was not admissible, and the same ruling was held to apply to the other imbeciles who were to be tendered as witnesses. The accused was consequently discharged by the magistrates, but having been committed on the Coroner's inquisition, he was brought up (from bail) for trial at the Lancaster Summer Assizes.

At the Assizes the Judge (Sir James Fitzjames Stephen) ordered an indictment to be drawn and submitted to the Grand Jury, who consequently examined the witnesses upon their depositions, and apparently took no exception to the imbecile evidence, as they found a true bill against the accused. The accused was accordingly put forward in Court to be arraigned, but the Judge, interposing, directed that the jury should be sworn to decide "whether the poor boy was in a condition to

plead in answer to the charge against him—not whether he was guilty of manslaughter." I was thereupon called to depose to his state of mind, and deposed that in my opinion he was not able "thoroughly" to understand the nature of a criminal trial; that his mental condition was that of imbecility; and that he was unable to plead. On his Lordship's direction the jury found that "the prisoner was not able to plead," adding also "that he was not answerable for his acts." The accused was consequently discharged to the care of his father, who was bound over in his own recognisances to produce the lad for trial when called upon, the Judge having previously satisfied himself of the safety of that course.

This case involves the two-fold question of the civil capacity and the criminal responsibility of educated imbeciles; for I presume that, had it been established that the imbecile witnesses were competent to give evidence on oath, the penalty for perjury would certainly have attached to them in the event of false statements. The further question of the degree of responsibility for crime which may fairly rest upon an imbecile according to the degree of his mental development was, owing to the prisoner being declared unable to plead, not entered upon in court, though it comes within the scope of our present discussion.

In considering the question of civil capacity we will first look at that aspect in which it has already come before us, viz., the competency or otherwise of an imbecile to give evidence in a court of justice. The ancient objection already quoted, that "an *idiot* shall not be allowed to give evidence," may, I think, soon be disposed of by inquiring what meaning formerly attached to the term idiot. If we turn to "Blackstone's Commentaries," Book I., p. 302, we shall find this definition: "An idiot, or natural fool, is one that hath no understanding from his nativity, and therefore is by law presumed never likely to attain any." For such an idiot no one could possibly claim competency to give evidence. But on p. 304 we read: "A man is not an idiot if he hath any glimmering of reason, so that he can tell his parents, his age, or the like common matters." We may, I think, therefore fairly cite Blackstone as not shutting out from personal rights such imbeciles as are found in the higher classes of our Training Institutions. Having regard to the very various gradations of mental power which we find even in the same school-class of imbecile pupils, it seems to me it would be impracticable to formulate any test of competency of universal application;

but some analogy may perhaps not unreasonably be traced between the lucid or illuminated portions of the imbecile's intellect and the lucid intervals of the insane, and competency be measured by lucidity. Thus an imbecile may be able to give a correct account of the successive incidents of a transaction which he has recently seen, because his general powers of observation have been cultivated; at the same time, he may go utterly wrong if asked (for instance) how many times a blow was struck, from his incapacity to count or comprehend the meaning of figures. It would be as unjust to reject the whole evidence of such an one on account of his failure with regard to numbers, as it would be to reject that of a colour-blind man with regard to the incidents of a street fight because he might mis-describe the hues of the costumes of the combatants. Then, again, with respect to the understanding by an imbecile of the nature and moral obligation of an oath, it may (I think) be fairly argued that if he understand that he is punishable both here and hereafter for falsehood after having solemnly promised (by kissing the Testament) to speak the truth, he understands all that is essential, though he may not be able to explain his theological views in open court. On the important subject of the testimonial capacity of imbeciles, I may quote the remarks of Mr. Balfour Browne.* "In many cases," says he, "imbeciles are competent to give very useful evidence, and to further the ends of justice, which but for their evidence could not be efficiently promoted. The question of the credibility of a person of weak mind, which is left to the jury, is very much the same as that which falls to be considered by them with respect to witnesses who have scarcely reached the years of discretion. In the case of R. *v.* Perkins, Alderson, B., said: "It is certainly not the law that a child under seven cannot be examined as a witness. If he shows sufficient capacity on examination a judge would allow him to be sworn." In many respects idiots are to be regarded as children, and their evidence, where it is unsatisfactory, will have failed in virtue of the same, or similar, qualities which take from the excellence of the testimony of very young children." The mental plasticity of imbeciles is another point in which they resemble children, and the possibility of their being tutored to relate as matters of observation what is really but an "oft-told tale" must not be lost sight of. Some caution also is necessary with regard to their evidence on matters which are

* "Medical Jurisprudence of Insanity," p. 305.

not recent, as many educated imbeciles have but indifferent memories for events at all remote.

I do not propose to do more than make a passing reference to the capacity of educated imbeciles to enter into contracts and otherwise manage their own affairs. Personally I have known very few who might prudently be allowed to do so, for figures and accounts are almost invariably ill understood by imbeciles, though, if my memory serves me, I have read of a former patient of an idiot asylum who was acting as agent of a loan society! With the majority, however, the safest course is certainly a life-long tutelage, and now that the Crown no longer claims the profits of the estate of one found *idiota a nativitate,* there seems but little hardship in a perpetual infancy under the guardianship of Chancery. The contract of marriage is certainly one into which no imbecile, however well educated, should be permitted to enter.

Passing now to the question of the criminal responsibility of idiots and imbeciles, I think I cannot do better than quote from the admirable chapter on the Relation of Madness to Crime in Sir J. F. Stephen's "History of the Criminal Law of England."* The learned author, after referring to the hypothesis "that certain forms of insanity cause men to live as it were in waking dreams," goes on to say that "knowledge has its degrees like everything else, and implies something more real and more closely connected with conduct than the half-knowledge retained in dreams. This last observation is specially important in connection with the behaviour of idiots, and persons more or less tainted with idiocy. Such persons will often know right from wrong in a certain sense, that is to say, they will know that particular kinds of conduct are usually blamed, but at the same time they may be quite unable to appreciate their importance, their consequences, and the reasons why they are condemned, viz., the suffering which they inflict and the alarm which they cause. An idiot once cut off the head of a man whom he found asleep, remarking that it would be great fun to see him look for it when he woke. Nothing is more probable than that the idiot would know that the people in authority would not approve of this, that it was wrong in the sense in which it was wrong for a child not to learn its lesson, and he obviously knew that it was a mischievous trick, for he had no business to give the man the trouble of looking for his head; but I do not think he could know it was wrong in the

* Stephen's "Hist. of Crim. Law," Vol. ii., p. 166.

sense in which those words are used in the answer of the judges to the House of Lords "—(*i.e.*, in McNaghten's case). The view thus lucidly set forth by a distinguished judge will, I think, commend itself to all who have had practical acqaintance with imbeciles. Truly "knowledge has its degrees," and the degree of knowledge in the case of the educated imbecile will, of course, vary with his original capacity and the degree of mental development which has resulted from education. It will require but little capacity or education to know that a blow hurts, or even to learn that it is wrong to hurt a companion. To know that a blow on the head may cause death by fracturing the skull is a higher degree of knowledge, only to be imparted to the imbecile by special instruction; for without this he may very possibly imagine that such a proceeding may produce no more grievous bodily harm than it apparently does in the case of Punch and Judy. It is obvious that the same measure of criminal responsibility cannot justly be held to attach to the imbecile with the higher and to the imbecile with the lower degree of knowledge, though in both cases there may be said to be *some* knowledge of right and wrong. While I should be the last to advocate the plenary punishment by law of any congenital imbecile, however much improved by education, I think it a dangerous doctrine that such persons should escape all punishment simply because they have been imbecile. The punishment should (it seems to me) bear some relation to the degree of knowledge of right and wrong possessed by the individual, allowance being moreover made for the defective judgment which may, in a particular case, interfere with the application of such knowledge. At best, the knowledge and judgment even of an educated imbecile must be reckoned as imperfect by the side of those of his "normal" fellow-man; and though committing things "worthy of stripes" his stripes should in comparison be few. Yet I think we may fairly claim that, along with the knowledge imparted by education, the imbecile does acquire responsibility in measure and degree, so that to him also society may apply, always with a wise discretion, the Scriptural maxim, "To whom men have committed much, of him they will ask the more." *

* It may perhaps be well to add that the unfortunate subject of the judicial investigations above referred to was but little improved by education, so that his case hardly falls within the scope of the concluding remarks.

Definitions of Insanity. By William R. Huggard, M.A., M.D., M.R.C.P.Lond.

Read at the Section of Psychology of the British Medical Association, held at Liverpool August 2nd, 1883.

An old teacher of mine, in days gone by, used frequently to remark in his lectures on Logic that the test of accurate knowledge is the ability to give an exact and comprehensive definition. Now, if this criterion were applied to us, alienists, in regard to the subject we are supposed to know most about, the result would, I fear, be somewhat disastrous, and not at all likely to shed lustre on our speciality.

To start with, let us have a clear idea of what we want to do when we wish to define a word. What is a definition? A definition expresses the meaning of a word, and that only; it fixes by language the connotation of a general name. It states the essential points in which all objects agree to which the term can be applied—those points of community the absence of one of which warrants the refusal of the name. It follows from this, of course, that a definition is a verbal or identical proposition. It does not convey any new fact; it does not state anything capable of proof or disproof. It only expresses in full what is meant when the word is employed. If it increases our knowledge, it is only because a clear idea is substituted for a hazy one.

We are now in a position to look into the opinions of those who say that insanity cannot be defined. One view holds that insanity is a simple or ultimate fact, incapable of analysis or resolution; that, as 'whiteness' can be explained only by showing white objects, so insanity can be explained only by exhibiting insane persons. The test of this opinion lies in the possibility of analysis, and that test shall presently be put in action.

Another view states that the manifestations of insanity are so various and contradictory that no one definition can include them all. This, it appears to me, is the essence of the difficulty; though the language employed clouds the real aspect of the facts. The true import of the facts, the accurate expression of the difficulty, is this: The term insanity is arbitrarily restricted by custom to certain cases, some of which do not differ in essence from cases to which the name is not applied. The delirium of fevers and that due to drugs are not ordinarily termed insanity. Yet if a crime were committed in the delirium

of fever there can be little doubt that a plea of temporary insanity would be allowed. In delirium from drugs the test of legal responsibility, according to Dr. Chevers, is the question whether the unsoundness of mind was wilfully caused by the person himself. Under some circumstances, therefore, and for some purposes, it will be acknowledged that the delirium of fever and the delirium of intoxication would be classified as insanity. The circumstances, nevertheless, that determine such an opinion are purely accidental or extrinsic, and have no reference to the essential phenomena observed in the patient. The delirium of fever would be called insanity if it led to crime. If bhang, taken by compulsion, brought on a state of frenzy, this, too, would be called temporary insanity. The mental derangement in intoxication differs from some cases of universally recognised insanity only in the different duration of the symptoms. And yet chronicity is properly regarded by all as not being an essential factor of insanity. In essential points it follows, therefore, that these cases are identical.

We see, then, that custom makes arbitrary restrictions, restrictions not founded on essential points. It is not to be wondered at, then, if it is found difficult to define insanity when an attempt is made to reconcile science and custom as it stands at present.

Glance at the current definitions. One of the features most commonly regarded as an essential is that the mental symptoms must be caused by disease. This view appears to me to be open to two objections. It is unsound in point of logic and too narrow in point of fact.

As to the logic, supposing it to be true in fact. There are two reasons here why the causation should not be included in the definition. The statement of the cause is a real, not a verbal or identical proposition. It is not involved in the meaning of the term. If in a case of insanity it could be discovered that there were no disease, we should not on that account refuse the name. The second reason why it is bad logic to define insanity by disease is less technical. It is this. The definition moves in a circle. Insanity proves that disease is present, whilst in its turn the disease proves the symptoms to be insanity. It would, indeed, not be illogical to say that insanity is a disease, meaning thereby that the term disease might be applied to the group of phenomena characterising every case of insanity. Such a use of the word "disease" would not, however, be in accordance with the

meaning given to that word in the other applications of it, as I think will presently be seen.

Another view taken of insanity is to say that it is a condition of mind in which the free-will has been destroyed by disease. This point, and the question whether disease is always present in insanity, will be dealt with in the exposition of the view now to be laid before you.

In the first place, and chiefly, then, insanity, as I understand it, must be regarded as a relative term—as a social or legal expression rather than as a medical one. It is, indeed, frequently said that insanity is a relative term—that what is a mark of insanity in one case is not a mark of insanity in another. It is not, however, in this comparatively trivial sense—the relative value of the marks of insanity in different cases—it is not in this sense that I use the expression 'relativity.' I use it in reference to the notion of insanity itself; that insanity is relative to what may be termed the standard of sanity; and further, that this standard of sanity is not a fixed and definite thing; that, on the contrary, it varies from time to time and from place to place, and that it has a constant tendency to rise with the progress of civilization.

The notion of insanity understood as a relative term involves still two elements. One is mental defect, congenital or acquired; the other concerns the nature and amount thereof.

In short, then, insanity may be said to be *any mental defect that renders a person unable to conform to the requirements of society.*

This definition comprises three notions—mental defect, inability, and the requirements of society. Two of these, inability and the requirements of society, must themselves have their meaning fixed.

To understand the meaning of ability or inability as used in the definition, it is needful to glance at the relationship between body and mind. As this point is fundamental, and as a clear grasp of it is essential to the right consideration of insanity, I trust I may be pardoned for recalling a few facts well known to all.

I am not going to take up your time with a discussion of the free-will controversy. I may say further that ontological questions touching the nature of mind and of matter are altogether irrelevant. Matter may be only a mode of mind, or mind may be only a function of matter. It does not concern us. Even allowing that mind and matter are both separate and independent entities, we have nothing to do with the

nature of the connection between them, or with the way in which one acts on the other. We may think with Descartes that there is a system of Occasional Causes; that when the mind makes a resolution, God prompts the body to the necessary movements for the performance of it. Or we may think with Leibnitz that there is a Pre-established Harmony—that the mind and body were originally so tempered and welded together, that the mental effort and the physical movement are simultaneous; that, in fact, body and mind, like two clocks, are wound up to go together.

It was needful to say so much to prevent misapprehension. Our sole object is to express the fact of the concomitance of mental and nervous action, and to state the laws that bind together the two series of phenomena—mind and matter.

The general laws connecting body and mind may, I think, in so far as they concern us, be formulated somewhat in this manner :—

I.—The brain is the organ of mind, and all mental action is preceded or accompanied by molecular changes in some part of the higher nervous centres.

The evidence of this law is found in various facts. (1) Prolonged mental exercise induces a sense of fatigue in the head, just as prolonged gymnastic exercise produces a sense of fatigue in the muscles. (2) Injuries and diseases of the brain are attended with mental symptoms. The facts put before us by experimental researches on the functions of the brain are of especial value in this connexion.

A second law of wide reach, which may be called the Law of Quality or of Kind, may be expressed as follows :—

II.—As is the constitution or structure of the brain, so will be the mind and character; and likewise, if it be preferred, as is the mind and character so will be the constitution and intimate structure of the brain.

The proof of this law lies in three sets of facts: (1) the correlations of the anatomy and psychology of man, (2) the comparative anatomy and psychology of man and the lower animals, and (3) heredity. There is a gradation in brains corresponding to the gradations in mind. Idiots are deficient not merely in mind; they lack also the brain development. Moreover, heredity displays itself in mental not less than in physical characteristics. In such cases it is clear that the finer shades of character are determined by organization.

A third law, which might be called the Law of Plasticity, may be formulated thus :—

III.—Mental action tends to modify the constitution of the nervous tissues.

It is necessary here to guard against misconception from the phraseology employed. Any of these laws could be expressed either in terms of mind to suit the Idealist, or in terms of matter to suit the Materialist. In the case of the present law, for example, it might be said that the molecular changes that accompany mental changes tend to become themselves ingrained in the constitution or structure of the nerve-cells. Nevertheless, such language, however correct it might be, would fail for the purpose in hand. It would obscure or altogether hide the part of the law that is significant for us; that the mental phenomena—thoughts, emotions, and volitions—re-act on the body so as to mould its configuration. This is the ultimate meaning of education; and it is recognized in the popular expression, "formation of character." In accordance with this law, too, habits are formed. The emotions, moreover, stamp their impress upon the face; and the expression in repose denotes the predominant cast of mind. All the facts illustrating the effects of mind upon body are in point. Ideas become actualities. Sydenham could always bring on an attack of gout by thinking of his great toe for half-an-hour. This law, observe, is expressed rather as a tendency than as a fact. The limits within which it is operative are fixed by the Law of Quality or Kind.

These are the chief laws that regulate the interaction of body and mind. Whatever may be the ultimate nature of mind, there can be no doubt that it conforms to the material laws imposed upon it by its bodily organ. If mind be not a function of brain, it is at least held in absolute thraldom by it. Notwithstanding this, our attention must be directed, not to the physical phenomena, but to the mental; and for a very obvious reason. The presence and the nature of the mental phenomena are indicated with tolerable certainty by various marks; but the nature of the molecular changes that underlie a brilliant thought, or an insane idea, are alike beyond the reach of human eye. The important thing to remember is that the brilliancy and the insanity are equally impossible without the molecular changes; and that the nature of these changes, the circumstances that determine whether the thought shall be a spark of wit or an insane delusion, depend altogether

on antecedent physical causes, such as organization, congenital and acquired, as well as the molecular changes immediately preceding. Even supposing the mind to be a separate and independent entity, it must have an organization of its own, and obey laws as unbending and of the same nature as those that govern the instrument it uses.

From these facts it is evident that they err who say that the freedom of the will may be lost by disease. Leaving out of the discussion the expression "free will," we find that not less in health than in disease does the material organ determine the thoughts, desires and actions. But, perhaps, there may be a grain of truth underlying what they say; or, perhaps, they mean something which is true though by the form of expressing it they make it false. In health the thoughts and actions — the "choice"—are in harmony with the previously known mental organization; in diseases of the brain, accompanied by insanity, the mental phenomena are out of harmony with the only previously known factor, the mental organization, though they are still of necessity conformable to the physical organization. Thus in health, mind obtruding itself we are apt to forget that it is for us indissolubly linked to body, and consequently obedient to the laws of the matter that serves it. In disease it preserves the individuality thus fallaciously obtained; but here its total subjection to matter can no longer be concealed. It is, however, glossed over and disguised by recognizing merely the subjection of the will.

Those who have followed me so far will have no difficulty in understanding what is meant by ability in the definition. It means not so much, "Is he able?" as "Can he be made able?" Do the nervous structures, or if it be preferred, does the mental organization possess such plasticity that it can be educated up to the required standard? To put the matter in a less general form, in what does the lunatic who breaks the law differ from a criminal? The lunatic is not able to conform to the requirements of society, and cannot be made able. The criminal, on the contrary, though he may not have been able to withstand his temptation, will, if he is punished, be able to withstand it next time. In other words, if a man breaks the law he is either a criminal or a lunatic. If, owing to mental defect, punishment will not cure him, he must be regarded as insane; in other cases, as a criminal.

We come now to the last term in the definition, the requirements of society. It is in considering this point that we see the broad sense in which insanity is a relative term.

It is generally recognized that sanity and insanity shade into each other by insensible gradations; that they are not separated by any sharp line of demarcation; that though the extremes are clearly contrasted, the margin of transition is broad and ill-defined. This is true so far as it goes, but it falls short of the whole truth. Thus the opinion seems to prevail that the line of separation, though not clearly marked, is one altogether of Nature's making. We have good reason for thinking, however, that this is not so; and that the line is to a large extent conventional. Nature makes a broad margin of gradations, but the circumstances that determine in what place the line should be drawn are the result chiefly of convention and of accident.

Thus it can be readily understood, on the one hand, that a man able to conform to the laws of a primitive society, may be absolutely incapable of complying with the exacting requirements of a more advanced community; and on the other hand, that a man able to take care of himself in a pastoral or nomad stage of civilization may require to be taken care of in the more sharp-witted and dishonest civilization of to-day, when people rob not so much by violence as by fraud. In the lower types of society less self-control is required on the one hand, and less brains on the other.

For example, amongst a barbarous and ferocious people, the fury of the epileptic, the paroxysmal violence of the general paralytic, and the boisterous excitement of acute mania if evanescent, might in some cases differ so little in outward appearance from the normal manifestations of undisciplined passion that they would be passed over as transient outbreaks of temper. Again, there is a variety of mania to be found in every asylum, the manifestations of which are almost identical with slight intoxication. The mind is always in a state of excitement of one kind or another. The ideas flow with great rapidity, but are bound together not so much by a natural or logical association as by the varying emotion of the moment, or by some accidental connection, such as verbal similarity. Speech, though not actually incoherent, is inconsecutive. These lunatics are mischievous and cunning. Though they lack self-control, yielding to every passing impulse, they can, like drunken people, pull themselves together, so to speak, under the spur of a strong emotion or of impressive circumstances. Thus at times they can hide their delusions, if they happen to have any, and can talk connectedly and with as much shrewdness and common sense as any sane man.

Who can doubt that, in a stage of civilization somewhat

lower than ours, such persons would be regarded as of sound mind? To this it may be answered that the reason would simply be that their insanity was not recognized; that they were not the less on that account really insane.

This answer will not, however, stand examination. It proceeds on that narrow and erroneous view of insanity that regards it as something fixed and absolute, and not merely as a relative term.

It may be laid down in general terms that the question of insanity cannot arise except in regard to matters that are below the general standard of the particular society. There can be no insanity in matters that are indifferent. It would be unmeaning to talk of homicidal mania as a form of insanity where murder is a recognized social habit. If one of the assassins of the Middle Ages, or one of the Thugs of India felt a homicidal impulse, he had no difficulty in satisfying his desire at once. Amongst the Kamtschadales murder, suicide, adultery, and rape were looked on as in themselves quite indifferent matters; while to rescue a man from drowning was regarded as a mortal sin. In this last case there might be some suspicion of a man's intellect if he saved a friend's life, but none if he destroyed it. Hence the derangements in question if recognized would only be regarded as diseases of the nervous system, not accompanied by insanity.

What is meant by the requirements of society or the mental standard may be further illustrated by one or two examples from our own times and from our own country. Take the case of sexual excesses. A sexual tendency that overbalances prudence and conquers self-control would in a young lady of high station be regarded as nymphomania, and would be held to warrant any restraint that might be necessary. In a young man of the same circumstances, the case would be looked on simply as one of "wild oats." Disease is not necessarily present any more in the one case than in the other. Should public opinion ever come to condemn sexual excesses as severely in men as in women, an attempt to sow "wild oats" will be regarded as a definite form of insanity. Habitual drunkenness is another example. It may be said to be in a stage of transition. Not until recently has it been held to be a form of insanity. One author of eminence still holds it to be a vice, and nothing else. A hundred years ago drunkenness was thought nothing of. A hundred years to come the insanity of the habitual drunkard will be unquestioned.

An instructive case of "Emotional Insanity with Homicidal Violence" is recorded in the "Journal of Mental Science" for

Jan. 1882. A young lady of mixed blood (father an Englishman, mother a Persian) had a most ungovernable temper. On one occasion she made a fierce attack with a pair of scissors on another lady. Upon this she was put in an asylum, and the Commissioners in Lunacy approved of the step. The writer of the article, however, though he regarded her confinement as perfectly justifiable, nevertheless did not consider her insane, and he accounts for her temper by her racial characters and by her mixed descent. As I understand the word insanity, that woman was genuinely insane in reference to an English standard of sanity. She was *unable* to conform to the requirements of English society. Her disposition was so ingrained in her that mere punishment could not cure it.

This case, too, shows why I think it wrong to speak of insanity as being a disease, much more to its being considered as of necessity caused by disease. The word disease is too narrow: insanity may be due not only to disease but to congenital defect. In fact, most cases of moral insanity are of this last description. The defect may be of the nature of an original absence of balance of the various faculties or appetites, or an imperfect quality of the organism characterised by little plasticity. In the case just mentioned the ordinary characteristic of one race becomes a defect in a race more highly organized. A large proportion of what are known as incorrigible criminals would also be found to come under this head. And should that day ever come when it is considered more important to prevent crime than to discover the criminal, an effective machinery of supervision will put it out of the power of persons labouring under congenital or acquired mental defect to damage irretrievably other members of the community. It is not, as some have declared, a sufficient test to say that a man differs from his former self; that whereas he was once amiable and affectionate, he is now irritable and morose. That this test omits cases of congenital defect where there has not been a change in the character is decisive against it. And again, in many cases, though the character is changed and the change is due to disease, it is not of such a kind or is not so great in amount as to constitute insanity.

It may perhaps be said that the definition here put forward does not serve as a *test* of insanity. It is not meant to do so. That is not the business of a definition. We may know what constitutes insanity, and yet be unable to lay down a satisfactory test, or set of tests, that will indicate unfailingly the presence or absence of the essential elements. The definition only shows what we must try to find out.

It may further be said, that delusions are not included. But they are included in so far as they concern us. If a delusion is of such a kind or of such degree that it does not interfere with conduct or with the ordinary affairs of life, it cannot, according to the meaning here given to insanity, be considered an insane delusion.

One point further requires explanation. A standard implies that there must be some persons to make the assay; some persons to judge each case by reference to proper tests. The standard, in the last resort, is public opinion; and it is represented indirectly in the professions of medicine and of law, and directly in a Board of Commissioners.

May I be permitted to say a word here about a definition of insanity given by Dr. Charles Mercier in a somewhat elaborate paper on the "Nature of Insanity?" Dr. Mercier defines it as "a failure of the organism to adjust itself to its environment." Without criticising the way in which the definition was reached, I may say that it appears to me to have three faults. First, it defines an obscure term by others still more obscure. In this respect it reminds one of Dr. Johnson's definition of network. That eminent scholar said that network was "anything reticulated or decussated, having interstices between the points of intersection!" Secondly, it is vague. What amount of mal-adjustment constitutes failure? It may be so understood that it includes, or that it excludes, all persons whatever. Everyone fails to adjust himself to his environment in some ways. In a broad sense, on the contrary, the inexorable laws of nature do not permit such a thing as mal-adjustment at all; everything fits in perfectly. The third fault is, that it is too narrow. It does not take account of the insanity so long as it remains in thought, though it may be quite evident that it will soon express itself in action. The failure must first occur. And again, an acute maniac, who, when put into a padded room, knocks his head against the wall, adjusts himself to his environment, and so, by virtue of the definition becomes sane.

In conclusion, I may remark that it is a principle of nomenclature that every term should have a definite meaning, and that every important idea should have a term to represent it. I submit that the term insanity has hitherto been without this definite meaning, and that the meaning I have ascribed to it is an important and definite idea requiring a term of its own, and that moreover it is the meaning that underlies every application of the term insanity.

On the Pathology of Mania. By Joseph Wiglesworth, M.D.Lond., Assistant Medical Officer, Rainhill Asylum.

Read at the Section of Psychology of the British Medical Association, Annual Meeting, held at Liverpool, August, 1883.

In investigating the complicated phenomena of mental action, normal and abnormal, it is not sufficient that we confine our attention to the nervous system in its latest stage of development, but we must direct our thoughts to the manner in which it has been built up; in other words, if we wish to understand how the nervous system acts, we must see how it has been developed.

Briefly, then, we consider that there is no essential difference between the simplest reflex action and the highest manifestations of intelligence. The nervous arc consisting of afferent and efferent fibres and intervening corpuscle, shows us the unit out of which the nervous system is built up; and it is by the combination of two or more such reflex arcs, fibres from which meet in a common centre, that the simplest form of nervous system is produced, and by the combination and recombination of an infinite number of such simplest nervous systems, the highest nervous systems are elaborated. The union of a number of nerve fibres from a number of nerve cells in one centre permits of the action of such nerve cells being controlled and co-ordinated by that centre; and by the union of a number of such centres of co-ordination in one higher centre it is possible for the numerous plexuses of cells and fibres individually combined in such lower centres of co-ordination to be all co-ordinated together in such higher centre; and the process of evolution implies a perpetual superposition of higher upon lower centres of co-ordination, so that what were at one stage of development, the highest centres, become at a more advanced stage subject to the control of still higher centres, and are therefore themselves relegated to an inferior position, so that when we reach the last term of evolution, at present expressed, we have an infinity of lower centres of co-ordination, controlled and co-ordinated by one or a few higher centres. These highest co-ordinating centres are of course the latest developed; but the more recently a nerve centre has been evolved the less stable is it, and the more likely is it to give way in an adverse environment.

We arrive, then, at the important conclusion that *the highest*

centres in the human brain are the latest evolved, and therefore the most liable to decay.

I wish to lay particular stress on this proposition, because in my opinion a full appreciation of it will assist us largely in our endeavours to comprehend the intricacies of mental pathology.

In every investigation into the phenomena of Mind it is necessary to keep clearly in view the distinction between Feeling and Intellect; for, as Herbert Spencer insists, the former is the material out of which the latter is formed. Feelings constitute the inferior tracts of consciousness, out of which in the superior tracts of consciousness Intellect is evolved by structural combination.* Intellect comprehends only the relational element of Mind. The highest centres in the human brain, therefore, will consist of the latest evolved relational elements.

The proposition here advocated is that Mania is a disease involving disorder of the relational elements of Mind, and of a greater or less number of these according to the intensity of the disease; in other words, what we clinically know as Mania, has for its material substratum, an affection, functional, or organic, of the higher co-ordinating plexuses of the brain.

Let us take an ordinary case of Mania, in which an individual after a period more or less short of mental under-action—so-called "Stage of Melancholia"—passes into a condition of mental over-action, the most prominent characteristics of which are excitement and incoherence. These manifestations are readily explicable on the theory here advocated. As we saw the lesion is confined to the higher co-ordinating plexuses of the brain, and we will suppose it to be of an irritative character. In the first place, then, these centres will be over-active, and will inhibit the lower centres in connection with them; but an individual who has the greater number of his nerve cells inhibited will be to that extent inactive—he will present more or less of mental torpor, and will probably be described as Melancholic; but an irritative action proceeding in the delicate protoplasmic substance of which a nerve cell is composed will probably quickly render it functionless; so here the over-activity of the higher centres quickly passes into under-activity, and the lower centres before inhibited now escape altogether from the control of the higher, and being neither controlled nor co-ordinated act over-vehemently and incoherently, and such

* "The Principles of Psychology," by Herbert Spencer, Vol. i., p. 192.

over-action and incoherence will continue until such time as the higher centres recover their controlling and co-ordinating power.

Dr. Hughlings Jackson, in a paper to which I have pleasure in expressing my acknowledgments, has well laid this down with respect to Epileptic Mania.* "On removal," says he, "of the influence of some of the highest nervous arrangements the next lower nervous arrangements, no longer controlled, spring into activity, and it is from *their* activity that the maniacal movements result. On the physical side there is loss of function of some of the highest nervous arrangements, and increased activity of the next lower. Correspondingly on the psychical side there is loss of consciousness and mania."

This explanation given of post-epileptic Mania by exhaustion appears to me to be fully applicable to the cases of what may be styled Idiopathic Mania, so frequent in asylums.

It is clear on the theory here advocated that the nervous plexuses, which by their activity produce the manifestations which we style maniacal, are really the healthy parts of the brain; and equally clear is it that they make up the major part of that organ, the actual lesion being confined to a comparatively small portion.

In styling these lower centres as healthy, it is true that they must be looked upon as hyperæmic; for to say that a nervous plexus is acting with abnormal vigour, and to say that it receives an abnormally large supply of blood, are different sides of the same question. But what I wish to insist upon is that this hyperæmia is a purely secondary thing—that it is the result of a demand on the part of the nervous plexuses for an increased supply. And this leads me to consider the current theory of Mania, viz., that it is due to hyperæmia of the brain; for whether the hypothesis of higher and lower centres be invoked or no, the theory in possession seems to be that a vaso-motor paralysis has led to a general hyperæmic condition of the cerebral cortex, and it is from this hyperæmia that the mania is supposed to result. The hypothesis of a vaso-motor paralysis, due to a primary lesion of the sympathetic, is so convenient a way of disposing of complicated questions in pathology that one can hardly wonder at the tendency to avail one's self freely of it; nevertheless, I think it necessary to protest against the disposition to put everything down to lesion of

* "On Temporary Paralysis after Epileptiform and Epileptic Brain Seizures; a Contribution to the Study of Dissolution of the Nervous System," Vol. iii., p. 443.

the sympathetic. This system, doubtless, has its diseases, as every part of the body has; but when the contention is between a primary lesion of the sympathetic and a primary lesion of the cerebrum, it is desirable to call to mind the relative stability of the two nervous systems, for the sympathetic system is not only uniform for the race, but has maintained a more or less constant character through a long series of inferior organisms; whereas the cerebrum in its higher developments is of quite recent origin, and is therefore infinitely more unstable than the former.

Let me emphasise the position here taken up, viz., that Mania is a primary disease of the highest co-ordinating plexuses of the cerebral cortex, and that from the temporary or permanent abolition of the function of these centres the lower centres—comprising the greater portion of the cerebral cortex—are thrown into activity, and that the tendency to over-action in these lower centres causes, by a reflex stimulus through the vaso-motor system, an extra supply of blood to be sent to the parts in question, just as we see when a gland is called into activity, which increased supply of blood will last just as long as the demand for it continues.

A pathological theory to be acceptable should explain not only the ordinary type of a disease, but also the lightest and most severe forms under which it occurs; and the theory here advocated seems peculiarly applicable to all varieties of mania; for in the most trivial forms we should suppose that the very highest co-ordinating plexuses were alone involved, whilst in the severest cases we have only to consider that the lesion has spread in depth so as to involve a much larger number of co-ordinating plexuses, to obtain a ready explanation of the phenomena manifested; indeed, in the very mild forms, the impression distinctly conveyed to the mind of the clinical observer is that the individual is to a great extent conscious of his slight vagaries, but has lost to some extent control over himself; but this is only another way of saying that his highest nervous plexuses do not properly inhibit his lower. Again, in the severest forms, great incoherence goes along with great excitement; but the greater the number of the higher plexuses in abeyance the worse co-ordinated will be those that remain, that is to say the more incoherent will be their action, and they will act with all the greater activity.

The hypothesis here advocated of the pathology of mania may be further elucidated by a consideration of the parallel states of Dreaming and Delirium. If a dream instead of being buried in the depths of subjective consciousness were acted

upon the world's stage it would be called an attack of Mania. I do not mean that it would be like Mania in every particular, but it would at least resemble it sufficiently to be nominated as a species of the genus. Now we have in sleep an anæmic condition of the brain, which, though possibly not the cause of sleep, is nevertheless its constant accompaniment; we may suppose the anæmia to be pretty uniform throughout the cerebral cortex, but this being so, clearly the highest and most delicate nervous plexuses, will be most plunged in torpor, and will thus lose their control over the lower, which, themselves subject to the general paresis, will exhibit activity in a modified form. It is clear, indeed, that the rest of a nerve cell is altogether relative, for whilst the function of the highest plexuses is probably for a time altogether in abeyance during sleep, the nerve cells which preside over the respiratory movements for instance are ever vigilant. It is probable, indeed, that the lower centres in the cerebral cortex are always acting more or less in ordinary sleep; but it is only when the higher centres are sufficiently active to take some kind of cognizance of the activity of these lower centres that we become aware of a dream.

Take again the case of Delirium, which presents many resemblances to Mania. What is the cause of Delirium? We say that it is due to the circulation of impure blood through the cerebral cortex, which produces degradation of the protoplasmic substance of the nerve cells, and it is doubtless true that such a state of things would produce abnormal mental action; but why does this take the form of delirium? We have a ready explanation on the principles here advocated, for the circulation of impure blood being uniform throughout the cortex, the highest and most delicate nervous plexuses would suffer first and most—would be involved in a disproportionate degree to the lower, which for a time at least would be permitted a period of over-activity and incoherence.

In both these cases we have an agent acting on the whole cerebrum at once, and it is owing to the disproportionate extent to which the unstable higher centres are affected, as compared with the relatively stable lower ones, that the phenomena in question are considered to be produced; whereas in Mania the argument is, that the higher centres are affected idiopathically, so to speak, and the activity of the lower centres is manifested without modification.

The question may be further illustrated by a consideration of the effects of anæsthetics.

How are we to account for the stage of excitement through

which an individual passes, during the administration of chloroform for instance? That is, how can the same agent produce at one moment over-activity and at another under-activity of nervous action? We may readily account for it on the principles here advocated; it might be said, indeed, that an individual in the course of Chloroform Narcosis passes through a very transitory attack of mania; for the action of the anæsthetic must be exercised first and mainly on the unstable higher co-ordinating centres, through the depression of which the lower centres are thrown into exalted action, and are permitted a brief period of activity before they too are overtaken by the paralysing influence of the drug, and pass into temporary quiescence. The difference in action between different anæsthetics may be explained by the different degrees of rapidity with which they make their action felt.

It is not out of place to refer for a moment to the action of nervine sedatives in the treatment of maniacal excitement. I think it will be the opinion of all present, that these drugs are not of much service in an attack of ordinary mania. I do not mean that they are never of use, but that their employment has not been attended with the results that might on *a priori* grounds have been anticipated. But on the view here advocated of the state of a maniacal patient's brain—that it is in a negative and positive condition—negative as regards the higher centres, positive as regards the lower—we find an explanation of the difficulty, for a sedative drug will doubtless exert its action pretty uniformly over the cerebrum, and whilst it will depress the positive lower centres, it will doubly depress the negative higher ones, and thus tend to perpetuate the vicious cycle.

The terms "highest centres" and "highest co-ordinating centres" have been frequently made use of in the course of the foregoing remarks, but though these must necessarily be situated in the cerebral cortex, no attempt has yet been made to localise them more definitely; the centres themselves being in some sense hypothetical, their exact situation must necessarily be more so, nevertheless data are not wanting to indicate the path on which we should travel. The nervous system sensori-motor in its first beginnings, is sensori-motor in its latest endings, and the gradual superposition of Intellect upon Feeling is rendered possible by the gradual co-ordination of the sensori-motor elements. Herbert Spencer has pointed out that Feelings correspond to the molecular changes going on in nerve corpuscles, and Relations between feelings (*i.e.*, the In-

tellectual Element of Mind) to molecular changes in the fibres which connect these nerve corpuscles.* But in the course of evolution, the relational elements are co-ordinated in a series of centres, and centres of co-ordination imply nerve-vesicles; therefore there should be in the cerebral cortex a series of co-ordinating centres corresponding to the connecting system of the brain. Does such a system exist? If so, it should not be met with in other nervous tissues, but should be peculiar to the cerebral cortex, this being the sole seat of the Intellect, as distinguished from a more or less confused sentiency. In the grey matter of the spinal cord we have the sensori-motor mechanism in a comparatively simple form, for it is now clearly established that the nerve cells of the posterior cornua subserve sensory, and those of the anterior cornua, motor functions. Have we any analagous elements in the cerebral cortex? I think it may be said that we have. Putting aside the first layer of the cortex as non-ganglionic, modern anatomical and physiological research renders it highly probable that the second and third layers of the cortex have a sensory, and the fourth layer a motor function, so that the nerve-cells of these three layers would constitute the sensori-motor mechanism of the cerebral cortex. But we have here an additional layer—the fifth layer—that of spindle cells, in which the characters sought for appear to be realised; for in addition to being unrepresented elsewhere, and therefore peculiar to the cerebral cortex, it belongs, as Meynert long ago pointed out on purely anatomical grounds, to the connecting system of the brain. The presumption therefore here hazarded is, that the spindle-celled layer subserves the relational, that is, the intellectual element of mind; and since Mania was concluded to be an affection of the latest evolved relational elements, we are now brought to the further conclusion that it is an affection of the latest-developed nerve-plexuses of the spindle-celled layer.

Since in all probability in the frontal lobes the whole brain is re-represented, it is legitimate to consider that it is in the frontal region that the latest developed plexuses are to be sought, though they would not necessarily be confined to this district.

I wish to point out, however, that the conclusions formerly reached as to the *nature* of the lesion in Mania, have no necessary connection with the hypothesis here suggested as to its *seat*, which latter may or may not be illusory, without affecting the validity of the former.

* "The Principles of Psychology." Vol. i., p. 190.

Towards the commencement of this paper, I defined Mania as an affection *functional or organic* of the highest co-ordinating plexuses of the brain, and this leads me to the final consideration as to whether or no there is a material lesion underlying the phenomena which we know as Mania—a lesion of nerve-cells that is capable of demonstration by the microscope. Some varieties of Mania indeed are of such a transitory character as to forbid us to suppose that there can be more than a functional derangement at work; many cases, however, appear to run such a definite clinical course, are moreover of such lasting duration, and end in such utter mental wreck, as to compel one to think that there is a definite material affection of nerve-cells at the bottom of the disease; but though unable at present to demonstrate its presence, if there be such a lesion, sooner or later it will surely come to light; for dark as is the pathology of Insanity at the present, we may confidently anticipate the time when the daystar of human knowledge will arise, even over this benighted region, and the shadows flee away.

Visceral and other Syphilitic Lesions in Insane Patients without Cerebral Syphilitic Lesions. By Wm. Julius Mickle, M.D., Grove Hall Asylum, London.

Read in the Section of Psychology at the Annual Meeting of the British Medical Association held at Liverpool, August, 1883.

It has been stated by some that it is syphilis originally mild and benign in its manifestations, that is most apt to cause cerebral syphilis; one saying that the subjects most liable to cerebral syphilis are those in whom the secondary symptoms have been slight or transitory; another asserting that often one can find no history of preceding cutaneous or other affection of either the secondary or tertiary order; another, that any syphilis may be followed by specific cerebral affections, the original mildness of a syphilis being no guarantee against future cerebral affections of syphilitic origin, and that the great majority of the cerebral affections are furnished in examples of syphilis which is of medium severity, or (less often) is benign. This last observer, in 47 cases of cerebral syphilis, found three after severe or grave syphilis; 30 after syphilis of medium severity, and 14 after syphilis benign in its manifestations. As stated by myself

in a paper* published more than seven years ago: "It is particularly in instances where syphilis affects the nervous system that its evolution is sometimes insidious; that its later lesions are not preceded by its usual characteristic development on the exterior of the body, or by only a partial, or slight, or transitory development; and that the diagnosis is surrounded by obscurity. This is the opinion of several writers on the subject, and more than once the fact has forced itself upon my attention."

But I am not about to speak of cases of this kind, or to look at the subject from this point of view. On the contrary, I wish to bring forward a typical case or two of an entirely different group, the special feature of which, to some extent, holds a complemental relation to some of the facts to which reference has just been made. This group, of which I would now speak, consists of insane and syphilitic persons in whom, whether the syphilis has or has not originally given rise to the insanity, the encephalon escapes recognizable syphilitic lesion, although syphilis runs riot, so to speak, elsewhere in the organism, and although all the circulating fluids of the body must have been richly infected with syphilitic elements.

And, of course, it is in cases where syphilis is the active factor in the production of the insanity that this escape of the brain from syphilitic lesion is matter of greater surprise.

But even where the insanity is itself due to some other causation, the disordered state of the brain renders the latter a part of less resistance and more obnoxious to the morbific influence of the syphilitic virus; more liable to the ravages of syphilitic lesions. Like intellectual overwork, like protracted or frequently recurring emotional and moral perturbation, and like alcoholic and sexual excesses, insanity itself should, we suppose, make the brain a more easy prey to the specific lues.

But, I repeat it, whether the cases follow this course, or whether, on the other hand, the mental disorder is attributable to syphilis—in the sense that had the patient not been syphilitic he had not been insane—in either event is an example afforded us of the group now under notice. Briefly, the group in which brain-syphilis is absent in insane persons who are the subjects of abundant syphilitic lesions of the viscera, and sometimes of other parts, such as the bones and skin.

* "British and Foreign Medico-Chirurgical Review," July, 1876; p. 161.

Nevertheless, it may be suggested that the slightly opalescent and milky state of parts of the pia-arachnoid in these cases might have been the trace of a former syphilitic meningitis. I think this is unlikely. The condition had none of those other appearances and changes which are usually found associated with a similar meningeal condition in examples undoubtedly syphilitic; and, again, it was in all respects quite the same as one sees in an immense number of the chronically insane who have never incurred syphilis.

With reference to the mental symptoms, the first patient had the intellectual feebleness and incoherence which form features of so many cases of syphilitic origin. Latterly he was a chronic dement, having at an early period exhibited some depression, and, occasionally, more or less excitement. There was, however, nothing distinctive in the association, succession, or course of the mental symptoms; nor were there, in any marked degree, those conditions more usual to syphilitic mental disease in its ultimate stage. But here the modifying influence of protracted special anti-syphilitic treatment must be taken into account. On the whole, I take it, that the case was one in which the syphilitic poison produced mental disorder either by way of toxæmia, or by way of the combined influence of syphilitic cachexia and anæmia, together with the exhausting and disturbing influence of the pain of local syphilitic affections of the bones and other parts.

I have already placed on record* many examples of cerebral syphilis, and of syphilitic insanity. Here I will briefly describe a case in which with chronic mental derangement, apparently due to syphilis, there were wide-spread visceral syphilitic lesions, but still no distinctly specific organic lesions of the cerebrum or its meninges. A few words will be added as to another case. The history of the second case is defective as to the time-relations of the associated conditions—syphilis and mental disease.

J. M., private 45th Regiment, was admitted January, 1868, and died January, 1876, at the age of 34. The attack of mental disease for which he was admitted was stated to be the first, and of about eight months' duration. This insanity had been insidious in origin, but preceded by frequent manifestations of constitutional syphilis, and syphilis was the cause assigned for its appearance.

When at Fort Pitt, Chatham, previously to admission, he had been

* "British and Foreign Medico-Chirurgical Review," July, 1876; Oct., 1876; and April, 1877. "Journal of Mental Science," Oct., 1879, and Jan., 1880.

quite irrational, muttering and talking to himself, hoarding rubbish (believing it to be jewels, so it was said), and obstinately morose and unsociable, wandering about with depressed mien and bowed head, but easily roused to violence. There was a papular eruption on the body ; and on the right parietal bone the scar of a node.

The case-book states that *on*, and after, *admission* he was restless, excited, disposed to violence, irrational in conduct, confused and incoherent in conversation, muttering to himself, and indisposed to occupation or amusement.

When I first knew him in 1872, and afterwards, he was still restless, excitable, confused, incoherent, but not disposed to violence. He worked well, laughed much without apparent cause, and chattered away cheerily to himself. Hallucinations were not clearly made out Some tertiary syphilitic lesions made their appearance from time to time ; as, for example, a node on the right tibia, followed by ulceration, and finally by permanent osteal and periosteal changes, and by a brownish depressed cicatrix. The same thing occurred with the right ulna. The scars of somewhat similar disease were seen over the right parietal bone, and the left ramus of the lower jaw. Iodide of potassium was given freely, perchloride of mercury and opium sparingly. Subsequently, indications of pleuritic thickening and apparent phthisis were noted ; then the pulmonary tissue began to break down, and with thoracic pain the condition became sub-febrile, the pulse frequent and feeble ; and refusal of food, vomiting, constipation, mitral bruit, and epigastric pain preceded death.

Abstract of Necropsy.—The calvaria was thin, not indurated ; the dura-mater ordinary. The meningeal changes were of a chronic ordinary kind, the pia-arachnoid being slightly thickened, and the pia-mater slightly œdematous, and gyri slightly wasted, over the superior and lateral fronto-parietal surfaces of the cerebrum, also somewhat over the lateral temporal surface and internal frontal surface. The grey cortical substance was of a mottled lilac hue ; many blood-vessel contents were visible to naked eye ; the middle strata were of a yellowish tinge ; there were many puncta cruenta in the medullary substance. The brain was otherwise of ordinary characters. The heart weighed $8\frac{1}{2}$ ozs. ; it was fairly healthy ; there was an adherent pale clot in the right chambers. In the left lung there was an excavation at the apex surrounded by induration and fibrosis, partly of iron-grey hue ; other fibroid bands in upper lobe and upper part of lower lobe ; the lung-surface was puckered and cicatrized at the apex and at posterior surface of lower lobe, and beneath the cicatrices the bands of fibrous tissue ran to caseous-like nodules, rather easily shelling out from vascular-walled cavities. Elsewhere, and in the right lung, were firm greyish-white nodules, and pneumonic patches. There was bronchitis on the left side. Thick, close, old, leathery, pleuritic, adhesive pseudo-membranes were found ; much more marked over the left lung. The mesenteric glands were swollen, of granular appearance on section, and exuding a

creamy fluid Some solitary and Peyerian glands were swollen, a few highly vascular, one or two slightly ulcerated.

Liver. There were perihepatitic adhesions. Huge gummata, partly consisting of yellow caseous material, lying near their outer surface, and also here and there in masses of irregular shape scattered throughout the rest of a gumma ; the intervening substance, and that invading the circumjacent hepatic tissue, being greyish, semi-translucent, fibrous, firm and elastic. Most of the left lobe was gummatous. Nine or ten puckered cicatrices on right lobe, mostly on upper surface ; from these, fibrous branchings traversed the gland-substance. Around one or two firm whitish fibrous masses the gland-tissue was pale and homogeneous in appearance. Left lobe adherent to spleen and to diaphragm ; dense adhesion-bands covering its upper surface especially. Weight of liver 66 ozs.

Spleen, a large cartilaginoid plate of capsular thickening on the external surface. Spleen thick, shapeless, boggy ; weight $12\frac{1}{4}$ ozs.

Kidneys. Gumma of *left* kidney partly embedded in the gland, partly projecting from its surface ; an old adhesion-band connected this with surrounding structures. Atrophy, cortical pallor, slight capsular adhesions, weight $2\frac{1}{2}$ ozs. ; non-waxy. Right kidney, $4\frac{1}{4}$ ozs., yet in general state much the same as the *left.*

Adrenals firm, mis-shapen by compression.

Bones. The pit on the ulna was filled with tough fibrous tissue, which bound down the skin over the brownish irregular scar. Right os parietale of ordinary appearance ; the node here had permanently affected the superficial structures only.

Microscopical.—The nodules from beneath the lung-cicatrices were of caseous microscopical appearances. As for the hepatic gummata, their yellowish portions showed granules, molecular material, granule masses, granular cells, oil globules, square crystalline plates. Their greyish, tough, elastic portions showed cellular growth, connective tissue-like elements, and points of commencing caseation. The mesenteric-gland-fluid exhibited pus-like globules, and a rich cellular growth.

Remarks.—Here there were extensive visceral, syphilitic lesions, as well as other traces of syphilis, as in the bones and skin, in an insane person whose insanity was attributed to syphilis ; and yet no coarse intracranial syphilitic lesions.

The lung-changes raised the question of syphilitic phthisis. The cicatrices on both lobes of the left lung, and the associated changes, led one to think of tuberculosis supervening on old pulmonary syphilitic changes.

A much less marked case was that of H. G., a soldier of the 3rd Battalion, Rifle Brigade, who died, aged 37 years. It was for his second attack of mental disease he was admitted.

At first maniacal, incoherent, and the subject of exalted delusions as to his being of royal parentage, he subsequently became silent, and, except during his last illness, had not spoken for some two years before death, being under the delusions that his speech had been stopped by the power of a former medical attendant, that his speech was visible, and that his words flew into the others in his vicinity, and affected them most injuriously. Transient delusions of ill-treatment and neglect arose during the last days of his life.

After death, the liver was extensively puckered on the surface by cicatrices, which also extended deeply into the organ, and were associated with gummatous remains. These were found mainly on the upper surface of the right lobe, and the under surface of the left. Some lardaceous and fatty changes of liver were present also. Pylorus thickened; stomach dilated. Kidneys granular, somewhat atrophied, with ordinary cysts. Ulceration of end of colon, and more particularly of rectum, where slight perforation had produced a sanguineo-purulent collection in the recto-vesical pouch.

Cerebral pia-arachnoid rather thickened; œdematous, passively congested. Cerebral grey cortex somewhat thin and anæmic; in some gyri its deeper layers were fawn-coloured. The œdema of pia, widening of sulci, and slight wasting of gyri, were mainly fronto-parietal.

Left lung, universal, old, close, thick, leathery, and even semi-cartilaginoid, pleuritic adhesion-layers. Cirrhosis, bronchiectasis, vomicæ, and caseous nodules of lung. Slight similar affection of right lung. Some enlarged lymphatic glands at the summit of the thorax, pressing upon the left subclavian artery (possibly assisted by an extension of the compressing influence of pleural induration and thickening), gave an explanation of the smaller left radial pulse observed during life; and by pressing on the neighbouring veins they accounted, also, for the distension of the veins of the left chest, arm, and neck which was observed for some time, but had disappeared for months before death. Præcordial intercostal pulsation, extending over several interspaces, and wide area of cardiac percussion-dulness had also been noted, and were explained by the heart being uncovered by lung, while its right chambers were dilated, and the thoracic frame was emaciated. Then, too, the aortic-arch was almost uncovered by lung, the pulmonary artery was surrounded by consolidated lung tissue, the pulsation being at the second, third, fourth and fifth left intercostal spaces.

The Basis of Consciousness : an Answer to Prof. Cleland.
By Charles Mercier, M.B.

The motives that impel me to take up the cudgels against Prof. Cleland are written in the thirty-second chapter of the Book of Job. Far better would it have been had the challenge been accepted by someone whose authority and standing were comparable with those of Prof. Cleland, but in default of such a champion my feelings are those so vividly described in the seventeenth and three following verses of the said chapter, by Elihu the son of Barachel the Buzite, of the kindred of Ram.

As pugilists shake hands and fencers salute each other before they set to, so let me first acknowledge Prof. Cleland's transparent fairness, and indicate the points of agreement between us. He asserts, and the assertion is of the greatest value as coming from a professor of anatomy, that "the questions raised are not to be solved in the main by experiment, though the biologist of the present day is too liable to take for granted that his science can be forwarded by observation and experiment alone, and that there is no art required to draw just conclusions from these." How far Prof. Cleland's rather vague charge against biologists in general could be substantiated is perhaps doubtful, and is not very material; but with his belief in the insufficiency of observation and experiment alone to deal with problems of this nature, I most heartily agree. The paper which I am now endeavouring to answer, and which appeared in the number of the "Journal" for last July, is a purely destructive criticism. "I cannot too much insist," says the writer, "that to prove one theory false it is not necessary to be prepared with another which is true to replace it." . "While I can add no light myself, I maintain my liberty to point out that the light declared to be seen by other people is no light at all." Such a liberty must be freely admitted, and the function of the pure critic must be allowed to be not only legitimate, but useful in a high degree. Here, however, our lines of coincidence end; the salute is over.

Since his sole object is to expose the falsity of the prevalent theory of the relations of the nervous system to consciousness, it behoves Prof. Cleland to be very sure that he rightly apprehends that theory and has correctly stated it. If his attack is directed against a position which the current

theory of consciousness does not include, and which the holders of that theory do not maintain, it is obvious that, however successful his attack may be, the soundness of the theory is not in the least affected. The obnoxious position may be pounded into flinders by Dr. Cleland's bombardment, but the tenants of the current theory may look on with complete unconcern. Let us first see, then, whether the position that he attacks is within or without our lines. "The prevalent theory of the seat of consciousness," says Prof. Cleland, "assumes that consciousness is entirely localised within a definite and unvarying part of the encephalon." I deny it. I deny *in toto* that such a doctrine is held by such a number or such a proportion of recognised authorities that it can by any permissible latitude of expression be called prevalent. It is a crude and rudimentary concept, which represents, no doubt, a stage that most thinkers pass through at an early period of their meditations on the matter, but which does certainly not rank as a standard doctrine at the present day. Prof. Cleland does not, and I will venture to say he cannot, bring forward a single expression by a single writer in direct support of his statement. He almost formally admits that he cannot. "No one," he says, "may have expressed it so, but rather the assumption has been made, simply because it has not occurred to anyone that it could be otherwise." If none of his opponents have expressed this opinion, it is surely somewhat hazardous of Prof. Cleland to attribute it to them, and the statement that it has never occurred to anyone that it could be otherwise is erroneous. So far from this being the case, a physiologist and psychologist of the very foremost rank in this generation, has written a work which is largely devoted to the exposition of a doctrine the very reverse of this, and which carries the main principle for which Prof. Cleland contends—the non-localisation of the basis of consciousness—much further than it is carried by Prof. Cleland himself. I refer to the "Physical Basis of Mind," by the late G. H. Lewes. Prof. Cleland admits the whole cerebro-spinal axis as the seat of consciousness, and goes so far as to say that it may even "extend along the nerves." Mr. Lewes extended it not only to the spinal cord and the nerves, but to the whole of the organism. Prof. Cleland has no doubt that in lesions of the cerebro-spinal axis, consciousness continues in connection with the larger mass of nervous substance, and that "after division of a nerve the distal part can no longer affect or be affected by

consciousness, and thus neither spinal cord nor nerves give evidence of an independent affection of consciousness." Mr. Lewes went much farther than this. He taught that after division of the spinal cord, not only was there consciousness in connection with the larger mass of nerve-substance, but that the part of the body below the section had another and distinct consciousness of its own. It is true that the views of Mr. Lewes are not generally accepted, but this is not to the point. The point is that it has never occurred to anyone to confute the opposite view. Now, the doctrines of Mr. Lewes are well known among psychologists, and if they err by rejecting them they do not err blindly. So far, therefore, as Prof. Cleland's statement that the prevalent theory rests upon the absence of a contrary doctrine, it is baseless, and falls to the ground.

What other evidence has he that the prevalent theory of consciousness is what he states it to be? It is implied, he says, in certain statements, some of which he quotes. The gist of all these quotations is that complex "purposive" actions performed in response to an irritation by an animal whose hemispheres have been removed, are not *necessarily* a proof of consciousness;—that adapted actions, such as intelligence would dictate, are *capable* of being called into play through the spinal cord, and without any accompanying consciousness. (The italics are mine). Presumably, if Prof. Cleland could have found passages more unconditionally expressed, he would have quoted them; and if these are all he has to depend on, he is leaning on a staff that is rotten indeed. All that these cautiously-worded passages express is that a "purposive" or "adapted" action, such as is commonly preceded and attended by motive and intelligence, *may* under certain circumstances, occur without any change in consciousness—that is, without any conscious accompaniment. From this position to the position that they *do* so occur is a good long step; and from the doctrine that purposive actions in a decapitated animal are not attended by consciousness, to the doctrine that "the seat of consciousness is entirely localised within a definite and unvarying part of the encephalon," is a leap compared with which any "gymnastic feat" that Dr. Cleland attributes to Prof. Ferrier is insignificant.

It seems to me that Prof. Cleland misapprehends the position of his adversaries. He is battering away at an old earthwork that has already been evacuated. He says that

his arguments remain unanswered, not because they are unknown, but because they are incapable of refutation. I think it is mainly because the position that he attacks is already abandoned. The very expression "*seat* of consciousness," appears to indicate a misapprehension of the current state of opinion; and other expressions in his paper corroborate this view. Such expressions are "that consciousness is not a function confined to the hemisphere-vesicle," &c.; "the same functions, including those of consciousness," which occurs twice; "I have not the slightest idea how it is that the will acts on hosts of muscles." Not only does modern psychology not postulate such a "localisation of the seat of consciousness within a definite and unvarying part of the encephalon," as Prof. Cleland credits it with, but it does not even acknowledge the existence of a "seat of consciousness" in the sense in which he appears to use the term. It does not admit that consciousness is a function of the hemisphere-vesicles or of any other part of the nervous system. It does not consider consciousness to be a function at all, and not being a function it cannot have a seat or location. Prof. Cleland says that he has not the slightest idea how it is that the will acts upon hosts of muscles. The prevalent theory of consciousness does not attempt to solve this problem. More than this, it denies that the will can act on the muscles at all. More still, it denies that it is possible even to think of the will acting upon the muscles or upon the nerves, or upon the nerve centres, or upon any material thing. It denies that any such problem can exist as that which Prof. Cleland finds insoluble. Such a problem, it says, is not insoluble, it is *unthinkable*. If, therefore, Prof. Cleland is endeavouring to refute a solution of this problem, as it appears from his context that he is, then his refutation, let it be as complete and successful as it is possible to be, does not affect the current theory of consciousness in the least. He may shoot as many crows as he pleases, but that won't hurt the pigeon that he is aiming at.

Let us see what is the next doctrine that Prof. Cleland credits his adversaries with. "Proceeding on that implicit assumption [of the definite localisation of consciousness], the next point has been," he says, "to determine what is the exact extent of brain in which consciousness is localised." I must meet this statement also with a denial. It appears to me that here, as elsewhere, Prof. Cleland treats as identical two things between which the prevalent school of psycholo-

gists draw a profound distinction; and that he not only does not himself recognise the distinction, but that he proceeds as if we, too, failed to distinguish between the two things, and, like himself, treated them as identical. These two things are the active physical process or change in the nervous system which we term its function, and the change in consciousness which is concomitant with this function. Elsewhere—in his Lecture on the Relations of Brain and Mind—he appears to recognise the existence of such a distinction in other men's minds, although he does not himself subscribe to it, and it is the more puzzling, therefore, that he should proceed in the paper which has called forth this answer, as if the distinction had not been made. What Prof. Ferrier's experiments go to prove, and are accepted as proving, is certainly not "the exact extent of brain in which consciousness is localised," but the regions of brain in which certain *functions* are localised, which is, or is held to be, a very different matter. He excites certain areas of grey matter, and traces the current of force that he sets free to its destination in certain muscles, and he notes the position, and number, and combinations of these muscles, and the movements that result from their contraction. Here there is no question of consciousness. The only elements involved are organs, spaces, forces, and movements. Whether this physical nervo-muscular process is or is not accompanied by consciousness, does not enter into the calculation. It may be or it may not. In either case it does not affect the function. It is outside the question that is considered. We don't know whether it is present or not, and so far as physiology is concerned we don't care. We have localised a function—a physical process. We have not localised consciousness, and we have not attempted to do so. We have discovered that a certain area of grey matter represents a certain movement—that activity of this area produces this movement; and that is all. Now we may go on to suppose that when this area of grey matter becomes active, there arises concomitantly in the mind an idea of the movement that the area represents; and this is what the prevalent school of psychologists actually do suppose. But is this supposition equivalent to assuming that we have determined the exact extent of brain in which *consciousness* is localised? I say it is nothing of the kind. It is determining approximately the region of brain whose activity is accompanied by the occurrence of a minute portion of consciousness. As to the whole remainder of consciousness it says nothing.

Now take experiments of the obverse character. Prof. Ferrier makes an impression on the retina or the tympanum, or on a localised portion of the skin, and he traces experimentally the nerve current that is thus originated to a region in the brain. He determines the locality in the brain to which a disturbance from this or that region of the surface of the body finds its way. Here again is a physical process—a molecular agitation in the nerve-tissue, and nothing more. There is no question of consciousness. The only things treated of are forces and localities. Now, however, comes a difficulty, and this is where confusion constantly steps in. It so happens that we have no special word to express the process that occurs in a nerve-centre on the arrival of a current from a sense-organ; and a vicious custom has arisen of using the word Sensation for this process, and often indeed for the incoming current also which starts the process. Hence it has come about that, while the outgoing current from the grey matter to the muscles is correctly named and represented in thought as from beginning to end a physical process—a wave of molecular agitation, the incoming current from the sense organs to the grey matter has been named a sensory impression, and often a sensation; and hence has arisen a misty notion that at some part of its course it becomes actually transformed from a molecular movement into a sensation—into a state of consciousness—a change which as has already been said, is, in reality, unthinkable. To imagine a wave of sound becoming red, or the rotation of a wheel becoming sour, or the flight of an arrow becoming cold, would be precisely analogous tasks, and from these instances it will, perhaps, more plainly appear that the change is not itself regarded as possible or impossible. It is regarded as a change about which no argument is possible. I do not charge Prof. Cleland with holding the view that an incoming current passing along the nerves can be transformed into a sensation, but I think he has been misled by the phraseology arising out of the unfortunate custom of which I have spoken, to attribute to his adversaries doctrines that they do not hold. The impression made upon a sense organ—say that of light upon the retina—sets up a nerve current, which finds its way to some region of the brain, and there initiates a state of activity—of molecular agitation. This region of the brain has been approximately determined, and has been called, in the case mentioned, the "visual centre." But this expression does not mean that the sensation of vision—the

consciousness of colour or of light—is localised in that region. Such a supposition would be not less absurd from our point of view than that of the child who thinks that the colour of an orange is in the orange. The colour is, according to the prevalent doctrine, neither in the object, nor in the retina, nor in the optic nerve, nor in the corpora quadrigemina, nor in the white matter of the hemisphere, nor in the cortex. It is in the mind. But it is not always present to consciousness. The feeling of colour comes into being only when the "visual centre" is functionally active. This is the conclusion that we found upon the experimental evidence. Is this "determining the exact extent of the brain in which consciousness is localised?" I say it is not. It is determining approximately the region of the brain that is active during one mode of consciousness. The mode of consciousness is but a fraction of the totality of consciousness; and even this mode is not localised. All that is localised is the accompanying nervous process. It is quite true that such unfortunate expressions are in use as "the localisation of sensations of sight and hearing," &c., but these expressions are merely convenient abbreviations which are almost forced upon us by the meagreness of our terminology. If we were always to put the expressions in full, and say "the localisation of the nervous process which has the consciousness of colour or sound for its subjective accompaniment," it would require the lifetime of an Enoch to write a book, and the long-suffering of Job to read it. The abbreviation contains, it is true, a meaning as portentous and as profoundly concealed as did the shake of Lord Burleigh's head; but when this meaning is known and agreed upon, it is as easy to read it in the one case as in the other.

"As regards the connection of mental operations with the hemispheres," says Prof. Cleland, "three theories may be distinguished. According to one of these, different portions of the hemisphere are the organs of different mental qualities; and that is distinctly the theory of Gall. According to another hypothesis, individual memories and other notions are represented as stored up in individual nerve-cells, as if they were so many quantities of matter or of some conditions of matter; and that idea undoubtedly crops up over and over again in the language used by many biological writers of the present day, though I am not aware that anyone has attempted to demonstrate its truth. According to the third view, there is no foundation for believing that either the qualities or the acts of mind are lodged in

so many separate receptacles, and that is the position which was taken up against Gall's phrenology long before the second hypothesis crept in." Without denying that each of these theories may have some adherents at the present day, they cannot, any of them, I think, be called prevalent, except, in a very much modified form, the first; and the theory that is most widely held, and that is indeed generally accepted, is not mentioned by Prof. Cleland. I refer, of course, to the theory that a mental state is the subjective side of a nervous process; that when a nervous process has once occurred—when a discharge has proceeded along certain lines—those lines remain thenceforward more permeable to nerve currents than they were before; and that this constitutes the statics of the basis of memory. Further, that whenever a fresh discharge follows the same route as a previous one, then the change in consciousness (if any) that accompanied the first discharge is repeated; and that this constitutes the dynamics of the physical basis of memory. According to this theory, different portions of the hemispheres are the organs not of different mental *qualities* but of different mental *operations*. Individual memories are represented, not as stored up in individual nerve cells, as if they were so many quantities of matter or conditions of matter, but as permanent modifications of structure, allowing of the repetition of special modes of activity; each such repetition of activity being accompanied by a repetition of the mental process—by a remembrance.

When I say that this doctrine reckons among its supporters such representative names as those of Mr. Herbert Spencer, Prof. Bain, the late Mr. Lewes, the late Prof. Clifford, M. Taine, and M. Ribot, I think it will be seen that the onus of showing that it is not the prevalent doctrine lies with Prof. Cleland.

So far I have endeavoured to show that Prof. Cleland's statements of the prevalent theory of consciousness are unwarranted, and that the onus rests upon him of showing that they are correct. I will now take his objections, and ask how far they are destructive either of the views that he thinks we hold or of those that we actually do hold. "The received theory," says Prof. Cleland, "demands that each distinctly recognisable spot of the body must be joined by a separate tract with its own cerebral terminus, a thing that is anatomically quite impossible, and so obviously so, that no competent anatomist will ask the question to be argued." Against almost every expression in the above statement I

put in a demurrer, and, in addition, I deny the conclusion. I do not, of course, venture to dispute with Prof. Cleland on a point of anatomy, but I maintain that the question is not a wholly anatomical one, if by this we mean a question of visible structure.

What does Prof. Cleland mean by a recognisable spot of the body? What does he mean by a separate tract? What does he mean by a cerebral terminus? If by a recognisable spot he means an area on the physiological surface of the organism such that impressions made upon it can be discriminated in space from impressions made upon surrounding areas; if by a separate tract he means a continuous nerve fibre; if by a cerebral terminus he means a cell or a group of cells; then, of course, I agree with Prof. Cleland that the thing is impossible; but I deny that such an arrangement is demanded by the current theory or by any other theory with which I am acquainted. But if by a separate tract he means a permeable channel of communication, and if by a cerebral terminus he means a region of grey matter, then I say that, whether it is demanded by the theory or no, the thing is not impossible. The current theory does not demand a separate nerve fibre for each separate channel of communication. On the contrary, according to that theory, it is not until a separate channel has long been formed, and multitudinous currents have been transmitted through it, that the molecules of the quasi-homogeneous grey matter slowly fall into the permanent arrangement implied by a nerve fibre. To imagine that no communication can pass from a definite area on the surface to a definite area of the cerebral cortex without the existence of a continuous nerve-fibre between them, is much like denying the possibility of getting from a point on the sea-coast to an inland village because there is no line of railway between them. Again, I demur to the expression "cerebral terminus." We do not acknowledge the existence in the cerebral cortex of any turning-point at which the incoming currents are abruptly reversed and become outgoing currents. The arrangement that we picture to ourselves as existing there is more like the arrangement of the cavities of a sponge—a network of intercommunicating channels.

Having accused us of maintaining an impossibility, Prof. Cleland next charges us with an incompleteness. He says, "that the received theory informs us of no mode by which the child learns to associate the changes taking place at the cerebral termini with the changes taking place at different parts of the surface—that is to say, to translate them as

things happening at the surface—is possibly so psychological as to be incomprehensible to some excellent persons." Without laying any claim to excellence, I must admit that this objection is wholly incomprehensible to me. Prof. Cleland surely does not mean that a child, or an adult either, has any direct knowledge of changes taking place at its "cerebral termini?" And if not, there is nothing to translate.

On the whole, I cannot see that Prof. Cleland has damaged the current theory of the Basis of Consciousness in the least, and I believe that while there are no doubt differences between his view and that which is generally accepted, the two are by no means so widely divergent as he would have us believe.

In conclusion, let me say that I feel that Prof. Cleland will look for no excuse for the uncompromising opposition with which I have met him. He has shown himself so fair and so able a disputant that I have perfect confidence in his disposition and his ability to credit all my opposition not to himself but to his opinions. These latter are so formidable, both intrinsically and from the reputation of their author, as, in my belief, to justify every effort that I could make to oust them. In dealing with an antagonist of Prof. Cleland's calibre, one cannot afford to indulge in child's play; but the buttons are still upon the foils, and so, as the Editors are calling time, with another cordial salute I take my leave of him. It is difficult to suppress an uneasy feeling that he will reply with Hamlet, "You cannot, sir, take from me anything that I more willingly will part withal."

[Prof. Cleland, to whom we have given an opportunity of seeing Dr. Mercier's article, in case he should wish to reply, writes that he thinks no advantage would accrue to science from a rejoinder to his criticisms. He trusts that those who read the latter's communication will also have the goodness to refer back to the paper in the July number of the Journal and the previous memoir which it supplements. He suspects that those who pursue this course will have a great advantage over Dr. Mercier. He desires to say that if the doctrine in question which he claims had been similar either to that of Mr. G. H. Lewes or the old notion of a *sensorium commune*, he would have referred to both. Professor Cleland still believes it impossible for anyone who has read his paper of 1870 to see in his views any resemblance to those of Lewes, whose memory he holds in the greatest respect, not only as a physiologist, but as an able metaphysician.—Eds.]

CLINICAL NOTES AND CASES.

A Case of Melancholy, with Stupor and Catalepsy. By James Adam, M.D., Malling Place, Kent.

The following case, which has been under my own observation from the period of the invasion of its more acute symptoms, appears to me so typical, and as so well illustrating the peculiar features of this disease, that I am induced to send a short outline of its more prominent symptoms, especially as I have been able also to obtain a very accurate history of the earlier symptoms from those well capable of intelligently observing and noting them.

On the 14th July last I was asked by the friends of a young lady, aged 21 years, to receive her under care and treatment. She was reported by them to have always enjoyed good health, and to have no hereditary tendency to mental disease. When about 11 years old, however, and when at a garden party on a very hot summer day, she complained of headache and sickness, for which she was put to bed at the time; she talked "strangely," and was supposed to have had a slight sunstroke. No after-effects being apparent, nothing more was thought of this. She has always led a sedentary life, been much at home, has studied very hard, and has gone very little into society. Last Christmas it was first observed that noises seemed to excite her; she complained of violent headache, but still went on studying. At last it became evident to everyone, herself included, that she must go for a change. This she did, and returned after a month saying she was quite well, and resumed her studious habits; but after a fortnight pain returned severely in the frontal and occipital regions, and she said she must give up study, as she personally attributed her own sensations to this cause. In the month of March the period of incubation appears to have come to an end, and decided symptoms of mental disease declared themselves, for she is reported to have now taken "odd fancies" into her head, and thought that people were looking at her. She drew down the blinds when walking through the rooms, and then she fancied she was mesmerised by persons having malevolent designs upon her to spirit her away. One night she got up from bed and rang the dinner bell violently, declaring some-

one was in the house. These symptoms being attributed to nervousness, recourse was again had to change of scene, and she went to reside with a relative. During all this time there was great mental depression. She frequently wished she were dead, and she became gradually more and more morose, sensitive, and silent. She was still, however, at this period, able to write letters quite coherently. On the 21st of May a still further stage in the progress of her disease was reached, and it was observed that there was "something peculiar" about her—described as a strange, down look, and a constant habit of examining and fidgeting with her hands; but she talked rationally, and worked in the garden a little. She again became possessed with the idea of being spirited away, and with being very wicked. On the 31st of May she first began to refuse food, because she said that the same malevolent persons had endeavoured to obtain an influence over her, and that their spells must be resisted by fasting and watching. Some days later she refused to go to bed, sat up the greater part of the night, and absolutely and resolutely refused all food. She now became intensely depressed, lay down on the floor, or knelt confessing, as she said, all the wrong things she had done, but which she had felt impelled to do. Exacerbation of these symptoms occurred at the monthly period, the appearance being very slight. All at once, at the end of a week, she suddenly began to eat, with the exclamation, "I can eat now." She remained comparatively free from depression for a time after this, although she appeared stupid, and was taciturn. On the approach of the next monthly period she began to be more uncertain in her habits, going to bed before supper and not dressing before breakfast, and now a still further stage was reached. One evening she appeared to be asleep, and it was found she could not be roused even by shaking her; but by persevering efforts she was at last induced to open her eyes, and then she said she had been in a trance. This trance-like condition returned frequently after this, but did not last more than a few minutes at a time. Gradually more acute symptoms supervened upon this. She began to talk excitedly; she started up in the middle of the night exclaiming, "Get thee hence, Satan." She became determinedly suicidal, tried to throw herself out of the window, and when prevented doing this to strangle or smother herself, or to seize a knife. By no persuasion could she now be induced to take food, and although she had been most care-

fully and delicately brought up, began to use dreadful language. The medical man in attendance had recourse to feeding by means of the stomach pump. The acute symptoms became continuous, and uninfluenced by the cessation of menstruation or its onset. Sleeplessness was persistent. At this stage I first saw her. The blanched, sallow, anæmic skin, the facial expression, the downcast look, the hysterical quivering of the upper eyelids, at once revealed the true nature of the case. On opening the mouth an intensely fœtid odour and discharge followed, and it was found that the fauces were in a state of great tumefaction and ulceration, and that the adjacent glands were swollen, tense, and inflamed. Blistering had been tried from the nape of the neck to the 11th dorsal vertebra without perceptible effect. She was exceedingly weak; the pulse, which could hardly be felt, was extremely rapid. The gaze was fixed straight in front, and the pupils dilated to nearly the full size of the iris; there was a tendency to a cataleptic condition. She had a delusion that she was a destroying angel, and under a Divine command to perform absurd and wicked actions. She gave no reply to questions, fell on her knees, and remained in that position till raised. She did not attend to the calls of nature. The use of the stomach pump was precluded by the state of the throat, and nourishment was administered in sufficient quantity by spoon and nasal feeding.

July 13. Has been constantly watched and nursed by night and day since her admission, and gradually gains a little strength, nourishment being still given by spoon and nasal feeding. She sometimes talks in an impulsive and deluded manner, saying she is a Royal person. She throws herself at length on the floor.

July 22. Has again become more strenuous in her resistance to taking food, and the throat and fauces having now undergone great improvement, recourse is had to stomach pump feeding with the soft tube three times daily.

July 23. About 9 p.m. was found to be very cold, slightly œdematous in the lower extremities, and a somewhat alarming faintness came on. The right leg was very cold, the left perhaps more than naturally warm; the heart sounds, although very weak, were clear. Liquid food, with stimulant, failed for a time to produce any effect, but in course of time the external application of warmth, and a stimulant applied to the lips, rallied her. She became restless at first, and finally fell into a sound sleep. On inquiry of her relatives

it was found that she had been subject to similar attacks previously.

Aug. 4. Stomach pump feeding three times a day has been steadily persevered with until last evening, when she partook of food naturally. To-day she sat at table. She does what she is asked to do, and attends to the calls of nature. She is moved without resistance. The cataleptic condition, which has been very marked, still continues so. She remains fixedly in whatever position she is placed, and the arms or legs, especially the upper extremities, retain for an indefinite period the position they are placed in. The pupils are now normal in size; she retains the same fixed, trance-like stare.

Aug. 12. Takes all her meals well, and in full quantity; is absolutely silent, cataleptic, and statuesque. Hysterical quivering of upper eyelids continues; there is now observable a general filling up of the loose tissues under the skin all over the body. A general œdematous condition. Her actions are mechanical. There appears to be no exercise of her own will; tickling the soles of the feet produces no effect whatever. The gaze is straight forward, the eyes fixed and staring; but she evidently understands what is said to her, as she does what she is asked.

Sept. 5. Cataleptic condition less marked; expression more intelligent; pupils normal. Still insensible to tickling the soles of the feet. Œdema has nearly disappeared. She has made flesh, and has the appearance of being well nourished. The functions are naturally performed. Menstruation is almost normal. She attends to the calls of nature.

Sept. 19. Has been frequently out walking, although she still has a cataleptic tendency, and when left alone she is apt to lapse into the same fixed stare. She has not yet spoken, and cannot be induced to do so. This afternoon, when out walking, she was surprised into replying "yes" to a question.

Sept. 20. Has to-day talked, played, and sang in quite a natural manner.

Nov. 7. From the date of last report, with some occasional temporary relapses, she has made fairly steady progress in her convalescence, but she is not yet free from the idea that she has been very wicked, and at times it appears as if the cataleptic and stupid condition might very readily be re-induced.

Three Cases: One with the Usual Symptoms of General Paralysis, One with Doubtful Symptoms, and the Third with Marked Symptoms; Pachymeningitis in all. [*With illustration.*]
By Geo. H. Savage, M.D.

The three Cases following are not so very rare, but are still of interest from several points of view. In Bethlem we have yearly ten or twelve post-mortems on more or less acute cases of general paralysis, and in general hospitals cases similar in the main, with but little mental perversion, but with weakness of mind are common, yet it is rare for the general pathologist to come across cases of pachymeningitis. This condition, if not solely found in general paralysis, is by far more common in this than in any other disease of the brain. In Bethlem, out of over 100 cases of examination after death, these are the only three well-marked examples of this condition of the membranes we have met with. In one other there were slight effusions occurring with fits, but these after death were found only as very thin discoloured layers, three in number, together not being above one-eighth of an inch in thickness. In the *first* case, the membrane was complete, and resembled a dark, sodden dura-mater, and was very complete over the whole sides and vertex of the brain. It was absent from the base, though here there was a staining at the edge of the membrane.

In this case the patient had had a slight attack of insanity shortly before admission into Bethlem, and had been taken to the Stone Asylum. After admission he was found to have a very large scar on his head; this was due to an injury some years before, which he said—and the statement was confirmed by friends—did not cause him any serious injury beyond the skin wound; at any rate he followed his profession satisfactorily till his attack of insanity.

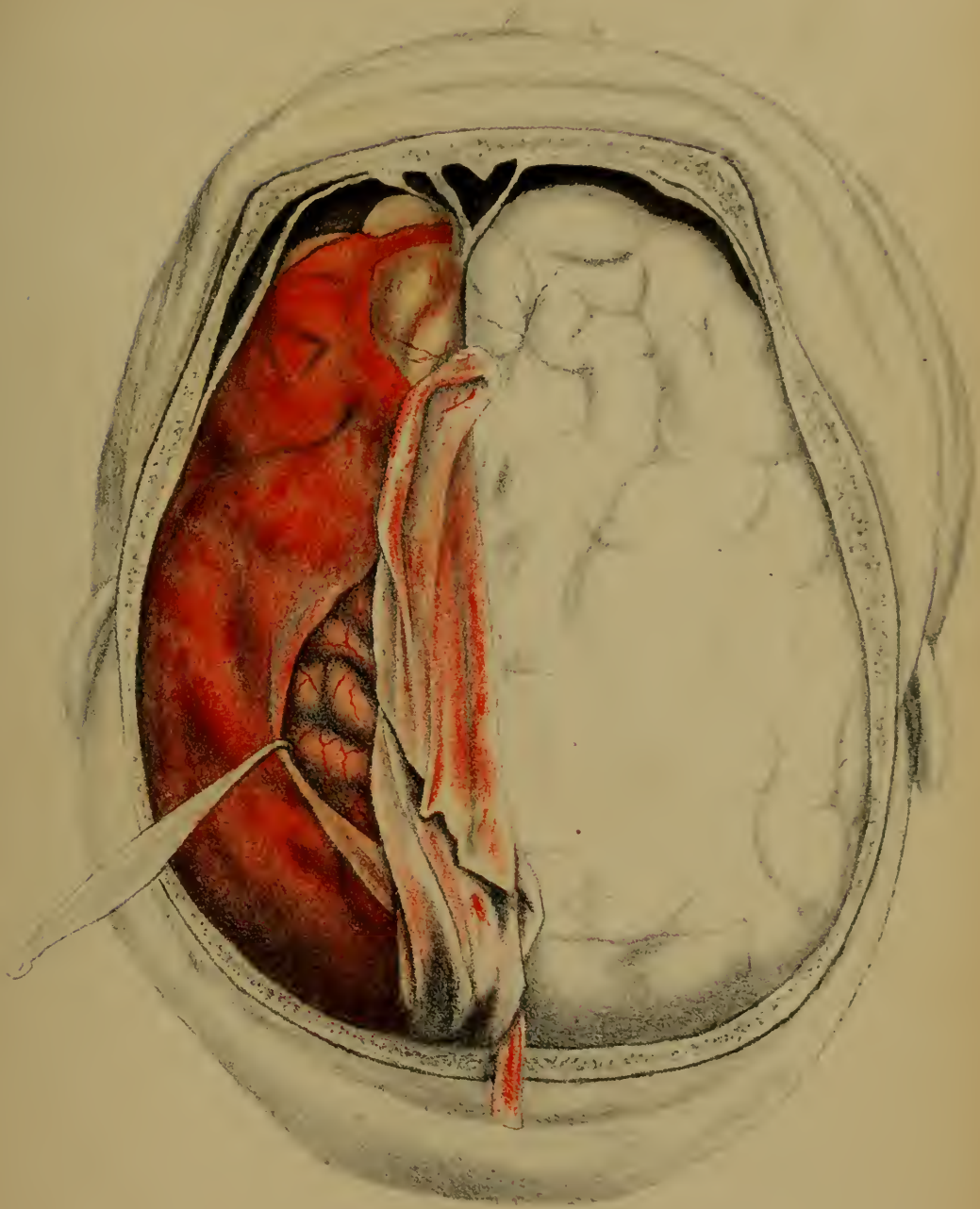
The blow may have had something to do with the causation of the paralysis, but this is not clear.

He had led a distinctly irregular life.

On admission he had all the symptoms of general paralysis, and he rapidly lost mental power, and six months after was so much weaker that I suspected that he had had a fit.

He had an attack of bronchitis and swelling of legs, but there was very little albumen in his urine. He took to bed, and then developed a very peculiar condition of breathing. Whenever he was roused and made to speak or swallow, his breathing became so difficult that one at first thought he

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TO ILLUSTRATE DR SAVAGE'S CASE
PACHYMENINGITIS IN GENERAL PARALYSIS OF THE INSANE.

would die, but as soon as he was quiet again his breathing was normal. I have since seen one other case, one of locomotor ataxy, with similar breathing, but this patient recovered, at least for the time. Adhesions were present between cortex and membranes.

In the *second* case the symptoms rapidly developed. On admission there was considerable doubt as to the nature of the disease; the only symptom markedly like general paralysis was the tremulousness of tongue with loss of expression. He looked like a case of melancholia with stupor.

One other symptom became noticeable, which was a certain amount of exophthalmos, and the skin was greasy. He had two distinct fits, and these were of interest from the fact that there were two effusions on the brain surface, one partly organised, the other fresh.

The head and eyes were turned to the side of the effusion. In this case the loss of power was not as well marked as one would have expected, the patient being only hemiplegic. In this case, as in the last, the reflexes were slightly exaggerated. The former case was one of general pachymeningitis, and this latter was only partial. Voisin has mentioned the fact that the effusion may be local, but I have not seen it myself so well defined. I believe it is very rare to see similar effusions in the cord. I can only recall one in a young general paralytic who had a fit; his temperature rose rapidly, and he died, when we found a large effusion into the dura-mater of the cervical region of the cord.

Case I.—Ralph B. G., æt. 59. Admitted Oct. 5th, 1882. Single. Solicitor. First attack. Duration of attack six weeks.

Confined in Stone Asylum in August, 1882, for six weeks. Cause of insanity not known. Not suicidal. Dangerous to others. Of moderately sober habits. Good education. Good bodily health. Paternal first cousin once removed similarly affected.

Copies of Certificates.—1st Med. Certificate.

1. *Facts indicating insanity observed by myself.*—He is excited in manner, incoherent in conversation, and has delusions of an exalted character, *e.g.*, that he is possessed of immense wealth, that he has power from the Queen to confer honours and bestow lucrative employment; promises gifts of carriages and horses.

2. *Other facts indicating insanity communicated to me by others.*—I am informed by G. P., attendant in charge of No. 2 ward, that Ralph B. G. makes unprovoked attacks upon both attendants and patients, and is uncleanly in his habits.

2nd Med. Certificate.

1. He requested me to meet Lord Salisbury and members of the late Government at breakfast, ordered the attendant to preside, and offered me a post under the late Government. He had the same idea as to his situation on every topic.

2. G. P. says that patient is hard to control, and is very quarrelsome with the other patients, so much so that he is always closely watched.

Information given by a friend about the patient.

Family history. Insanity.	Cousin of patient's father.
Neuroses in patient.	No.
Phthisis.	No.
Acute rheumatism or chorea.	No.
Fits. Epileptic.	No. (?)
Fevers.	No.
Other diseases.	No.
Temperament.	Quarrelsome. Excitable.
Injuries or shocks.	Serious scalp wound 7 years ago. Bone injury. (?)
Time of earliest symptoms.	4 months ago.
Nature of ditto.	Fit.
Progress of case.	Progressive excitability and exaggeration.
Suicidal.	No.
Dangerous.	Yes.
Tendency to leave home.	No.

Condition on Admission.—Patient is a short, very thickset man. He looks his age, and appears in good bodily health. Skin not greasy. Pupils equal. He speaks very slowly and deliberately, and occasionally stumbles over a long word. His tongue is steady, lips slightly tremulous. Knee-jerk quite up to average. His disposition is very changeable, at times friendly, but easily put out, when he has little control over his temper. Memory is fairly good, but, in describing past events, he repeats himself, and often does not get to the point. His delusions of exaltation are very prominent; he is King of England, Emperor of France, &c., &c. Very rich. On the whole he is contented, and talks a great deal about grand dinners.

Oct. 12th.—Bodily health continues good. He eats and sleeps well. Loquacious.

Oct. 22nd.—Feebler both mentally and bodily.

Dec. 1st.—Not so well. Quieter. Less expression about his face.

„ 19th.—Will not speak or take notice of anything. Considerable œdema of right eyelid. Probably had a fit this morning.

1883, Jan. 4th.—In much the same condition.

March 23rd.—No sugar in urine.

June 30th.—Has some cough. Bronchitic in character. Re-

spiration hurried and shallow. Œdema of both ankles. Refuses to allow any examination to be made.

July 3rd.—In bed. Breathing more laboured. Feet and legs more swollen and œdematous. Eyelids puffy.

July 4th.—*Urine.* Lithates. Small quantity of albumen.

,, 7th. —Œdema decreased.

,, 10th.—Whenever anyone goes into his room his breathing becomes rapid and shallow. He becomes rather livid while breathing thus. It does not last more than 3—4 minutes.

July 14th.—Breathing distinctly Cheyne-Stokes in character. Face livid, and he seems much distressed. Died at 3.58 p.m.

P.M. 41 hours after death.

Head and Spine.—Brain weight, 3lbs. 9ozs. Considerable amount of fluid. Arteries much changed. Thick membrane implicating arachnoid. (Pachymeningitis.) Adhesions on the whole surface of the frontal lobes, but this part of brain is sodden. Unusual amount of adhesion between the median surfaces of the frontal lobes. No marked wasting.

Grey matter about normal depth, in appearance to naked eye. A brain-sand tumour, about size and shape of a bean, in each choroid plexus. In the anterior fossæ of the base of the skull, on the dura-mater lining the bones, especially on the horizontal plate of the frontal bone, is a deposit of pigment. Also a similar deposit on the upper surface of the tentorium cerebelli.

Cord.—Very decomposed.

Heart.—Weight, 26 ozs., very much dilated. Valves fairly healthy. Atheroma of aorta, which was dilated and pouched.

Lungs.—R., 22 ozs.
L., 19 ozs. } Both œdematous.

Liver.—3lbs. 15 ozs. Much decomposed.

Spleen.—9 ozs. Much congested.

Kidneys.—R., 7 ozs. Congested. Capsule slightly adherent.
,, L., 7 ozs. ditto. ditto.

Case II.—Edgar G., æt. 33. Admitted Feb. 10th, 1883. Married. No children. Draper.

One previous attack. Age on first attack, 14 days. Supposed cause of insanity, anxiety on money matters. Not suicidal. Not dangerous to others. He has been of sober habits. Grandfather had melancholia.

Copies of Certificates.—1st Certificate.

1. General wandering and aimless restlessness; talking incoherently, muttering to himself; stating that people get armsful of goods out of his shop, and that the shop is being emptied, and that the assistants are not fed, and is getting excited about this.

2. By S. G. Unreasoning fear of fire; fancied gas explosions;

believing that his assistants were being starved, and that persons come into the shop taking away goods without payment.

2nd Medical Certificate.

1. His reasoning faculty is confused ; his ideas are erroneous ; he is excited, and has fits of despondency. I have seen him slightly violent.

2. *Information given about the patient by his wife.*—His grandfather died of melancholia. Time of earliest symptoms, 14 days ago. Nature of ditto—Incoherence in speech and hesitation. Progress of case—Sleepless. Violent and refused food. All other facts are negative.

Condition on Admission.—Tongue not markedly tremulous. Appetite fair. Pupils normal. Skin not greasy. Sensibility good. Has delusions. Depression. Sleepless. Walk normal. Patellar reflexes rather exaggerated.

Progress of Case. March 23rd.—No sugar in urine.

April 7th.—Distinct hesitation of speech.

May 2nd.—Fell down in fit and cut his forehead.

„ 25th.—Rather weaker.

June 13th.—Reported to have had a fit in the night. Now in a semi-dazed condition. Complains of frontal headache. Pupils equal. No vomiting. No loss of power, but movements uncertain and jerky. Reflexes exaggerated, but equal on the two sides. Speech hesitating and tremulous.

June 30th.—Found unconscious between 6 and 7 a.m. At 10 a.m. quite insensible. General loss of power. Head turned to right. Conjugate deviation of eyes to right. Pupils equal, act slightly to light. Patellar reflexes exaggerated. Ankle clonus easily obtained. Skin reflexes well marked. Has passed his urine under him. P. 170. R. 55. T. 105°. Never regained consciousness, and died at 12.53 p.m.

Post-mortem 21 hours after death.

No marks of violence save slight extravasation in skin over right eyelid.

On removing calvarium blood ran out, chiefly fluid, partly clotted, about 4 ozs. in all ; the dura-mater having been perforated in sawing through skull.

The right hemisphere was much flattened and compressed, shelving off in a very noticeable way at distances varying from an inch to a quarter of an inch from the edge of the median fissure. The convolutions on this side were seemingly atrophied, but this was due mainly to the compression ; over this compressed portion was a large sac, the walls of which were formed of a yellowish, translucent, homogeneous membrane, to the naked eye not vascular. This was reflected from the pia-mater of the right hemisphere on to the arachnoid surface of the dura-mater. A considerable amount of soft, dark, clotted blood was lying in the sac, the remainder, as before mentioned, had run out.

In left temporal fossa a small amount of sanguineous effusion.

The pia-mater peeled off the convolutions well. No adhesions anywhere. There were several points of lymph beneath the pia-mater on the right side. Grey matter normal but pale.

Fourth ventricle slightly granular on floor.

Lateral ventricles—no fluid, not enlarged.

Weight.—L. hemisphere, $19\frac{1}{4}$ ozs.

R. „ $18\frac{1}{2}$ „

Cerebellum pons and medulla } $5\frac{1}{2}$ „

$43\frac{1}{4}$ ozs.

Cord.—Weight, 2 ozs. Considerable amount of fluid in canal. Lower $\frac{1}{3}$rd very soft. Marked excess of connective tissue generally, most in lateral columns. Degeneration of cells of anterior horns.

Heart.—Weight, 10 ozs. Valves healthy. Slight amount of fluid in pericardium. No atheroma of aorta.

Lungs.—R., 37 ozs. } Both much congested.
L. 31 ozs. }

Pleuritic adhesions both sides.

Liver.—57 ozs., healthy.

Spleen.—9 ozs., healthy.

Kidneys.—R., $4\frac{1}{2}$ ozs. } Healthy.
L., 6 ozs. }

Case III.—Case of Mrs. Annie B., admitted into Bethlem Hospital July 31, 1883.

One sister suffered from puerperal mania, one from delirium tremens. Supposed cause, money losses about three years ago. Active symptoms. 6 months was sleepless and then excited with exalted ideas. She talked incessantly in a restless excited way. Muttered to herself. Broke windows.

About three years ago a serious pecuniary loss was a great shock to Mrs. B., and evidently preyed upon her mind, as in the course of time she fell into a state of profound melancholy, and it was with difficulty she went about her ordinary household duties. This feeling so far increased as at times to render her perfectly speechless, and she would sit apparently listless, and indifferent to any conversation that was taking place. Change of scene was tried, but without beneficial effect, and she returned home. After awhile she seemed to recover, and was able to attend to her duties, shopping, &c., and to take short railway journeys alone. But before long a relapse occurred, and on one of these occasions she was brought home in a cab late at night, utterly unable to give any account of herself or her movements during her journey. From this period the disorder became obviously more pronounced. She was agitated, and had strange delusions about her relationship to the Royal Family, and had exaggerated ideas of money.

She also became helpless and incapable of doing anything for herself, and neglecting her natural habits of cleanliness. Taken by her friends as a last resource to a favourite sister, she broke out in a few days into a violent paroxysm, imagining all sorts of strange things, as that a favourite nephew was outside the house, and that nobody would let him in or give him food. At intervals she had complained of violent pains in the head, and of hearing strange noises as of cannons going off, the sound of choirs singing, &c., which were very distressing to her. She then became seriously worse, and so uncontrollable that her friends placed her in Bethlem Hospital.

On Admission.—Had exalted ideas as to wealth and Royal Family. Tongue tremulous. Right pupil slightly larger. Speech thick. Patellar reflexes rather in excess. Walk staggering. She fell about, and became steadily weaker in mind. Refused her food at times and had to be fed. In September she was in much the same state, save that pupils were equal and reflexes normal. She was incoherent, and had exalted ideas. Memory almost gone.

In October the reflexes were fully marked or exaggerated.

On October 24.—Had a series of fits. Temperature normal.

„ 30.—Rallied a little.

Nov. 3rd.—Died.

Post-mortem, Nov. 5th, 1883.—(Head and spine only examined.) The calvarium was normal, and on removal nothing unusual was seen on surface of dura-mater. This easily separated on the right side, but on the left it was adherent to the arachnoid, the cavity of which was filled with a soft false membrane. This was very easily raised, save at vertex, where it was adherent with the pia-mater and in places to the cortex. After raising the dura-mater of right hemisphere one was struck with the presence of lakelets of clear subarachnoid fluid, which were seen at the vertex replacing wasted convolutions; these were most marked over the base of the first frontal on right side, and over the top of the ascending frontal convolution. The wasting, and the fluid raising the arachnoid were present on the left side in corresponding sites, but not to such an extent. The wasting was most marked in the areas mentioned. There were numerous adhesions of membranes to the cortex, chiefly over frontal regions of both sides. In spinal cord there was adhesion between the dura-mater and arachnoid and pachymeningitis most marked over the posterior and right side. This was stripped off with fair ease, but was seen to be a gelatinous matter. To the naked eye there was little abnormal visible in the cord on section, but the right posterior horn was full and red.

Case Resembling General Paralysis—Meningitis Followed by Effusion of Lymph and Pus into the Arachnoid Sac. By John Manley, M.D., Medical Superintendent of the Hants County Asylum.

Henry Smith, aged 36 years, unmarried, was admitted 16th May, 1883, into the Hants County Asylum.

Very little was known respecting his history, but it was reported that his mother was an old woman of 82 years of age, still enjoying good health, and that there had been 16 in the family, of whom four brothers had been killed in the Crimea, and that he was supposed to be her only remaining child. No family history of either insanity or consumption could be traced. His illness was variously stated to have been from one week to five months' duration, but no distinct account could be obtained, yet it seemed probable he had been becoming gradually ill for some months, though the acute symptoms had not long shown themselves.

The illness was attributed to the fact that his sweetheart had jilted him and married some one else. It had manifested itself at first by his having failed to recognize that property in his neighbourhood did not belong to him, and exercising the right of ownership over it, such as getting up in the night and cutting the hedges, and by silly purposeless actions as planting potato sets, and digging them up and cutting them to pieces within a day or two of placing them in the ground. He had lately been very restless and excitable, requiring the attendance of two men to look after him. He was reported as having always been a steady, well-conducted man.

On admission he was, as regards his mental condition, very incoherent and wandering in his ideas; would not dress himself, passed his evacuations in bed, and had threatened violence to his mother, which was the immediate cause of his removal from home.

With respect to his physical condition. His head was hot, his tongue white, but there is no record whether it was protruded with a succession of efforts, so that it was probably done naturally. His speech very slow and thick, sometimes he did not care to answer questions, and seemed not to comprehend what was said to him. His expression was excited, he was very shaky on his legs. He weighed 11st. 5½lbs.

The rest of the history is soon told. His excitement passed off, he gradually became weaker and weaker, and his speech entirely failed him. In a fortnight he was so feeble that it was necessary to place him in bed where, though water cushions were used from the first, he became sore, and then large black sloughs appeared wherever the parts rested, hanging eventually down from the surrounding tissues. He suffered no pain, and took what was put into his mouth. Finally on July 8th epileptiform convulsions came on and continued until five o'clock in the afternoon, when death occurred.

Post-mortem examination. Eighteen hours after death. Body much emaciated, with many large sloughs on the prominences of the bones.

Head. The calvarium on section was readily removed from the dura-mater below. The bones of the skull, particularly the right temporal and parietal, were blanched and anæmic. The frontal bone was honeycombed with a creamy looking pus. The membranes of the brain were very pale. The arachnoid had evidently been in a state of acute inflammation, and was covered with a mixture of soft lymph, and purulent matter which had a tendency to make its way towards the cribriform plate of the ethmoid bone, and had burrowed into the frontal bone. This covering over the convolutions resembled both in colour and consistency a thin layer of a plain omelette. When the dura-mater was divided about 3ozs. of fluid mixed with pus escaped. The cerebrum weighed 37ozs., the cerebellum and medulla 7½ more. The consistence of the brain substance was almost normal, but pale, and there was an absence of blood spots. The cerebrum appeared to be healthy. The lining membrane of the fourth ventricle was quite smooth.

This is the only instance in which I have seen such pathological appearances in any case simulating or actually being one of general paralysis, although Bayle and Esquirol expressed the opinion that this form of mental disease is indicative of inflammation of the meninges. I therefore think it deserving of record.

Case of Exophthalmic Goitre with Mania. By J. Carlyle Johnstone, M.B., Senior Assistant Physician, Royal Edinburgh Asylum.

Mrs. G., aged 32, a native of Dumfriesshire, was admitted into the Royal Edinburgh Asylum, 25th November, 1881.

The family history was good, with the trifling exception that a brother had been intemperate. The patient herself had had no previous ailments of any consequence, was naturally of a cheerful, frank disposition, and had led a sober, industrious life as the wife of a respectable working man. She was the mother of three children, the youngest being two years and nine months of age.

The history of the present attack was as follows. For the last three years she had been gradually losing flesh and strength. Lactation stopped four months after the birth of her child. Two months later she had a severe attack of vomiting, and her neck became swollen. It was next remarked that her eyes had become prominent, and this was ascribed to the vomiting. At the same time her legs became affected with prurigo. Nervous palpitations next made their appearance, and, owing to her emotional excitability, patient became unable to attend to her household duties. On the 24th September, 1881, she was sent to the Royal Infirmary, Edinburgh. For the following notes of her case taken during her residence there, I am indebted to Dr. E. H. Lawrence Oliphant, Resident Physician.

On admission she complained of prominence of the eyes, swelling of the neck, palpitation, itchiness of the legs, and nervousness. She was fairly nourished. She complained of headache, giddiness, and dimness of vision. She was restless, and fidgeted about in speaking, with her hands frequently clasped behind her neck, and she moaned in her sleep. The left eye was especially prominent. There was a certain amount of nystagmus. When asleep the eyes were not completely covered by the lids. Von Gräfe's phenomenon (the disassociation of the movements of the upper eyelids from those of the eyes) was best marked in the left eye. This was very clearly demonstrated by watching the patient reading, the eyelid remaining up. Ophthalmic discs were hyperæmic. Considerable pressure was needed to push the eyes back into the orbits.

The least excitement caused violent palpitation. There was a general pulsation of the præcordia. The cardiac dulness was not much enlarged. On auscultation a loud systolic murmur was audible all over ; it was heard most distinctly in the pulmonary area.

In the neck the enlarged thyroid was seen as two pulsating tumours united in the middle line. The right lobe was the larger. The pulsation was most marked at the posterior borders. Over the tumour a continuous bruit was audible, intensified by the cardiac systole.

There were occasional slight gastric disturbances.

There was prurigo on the legs, which were slightly eczematous. Vaginal examination showed that there was perimetritis with some subinvolution. The vaginal walls were somewhat prolapsed. There was leucorrhœa at the menstrual epochs.

Under the administration of digitalis and the application of the constant current to the neck, patient progressed favourably for some time, becoming less nervous and having less palpitation.

Five days before being sent to Morningside she suddenly and unexpectedly expressed the delusion that she had all the symptoms of cancer of the stomach, as described in a newspaper she was reading. This she dwelt upon, and soon after became violently excited to such an extent as to require the use of mechanical restraint. From that time she was sleepless, took little or no food, was obstinately constipated, and vomited persistently.

When admitted into the Royal Edinburgh Asylum, Mrs. G. was in a state of acute excitement. She presented a dishevelled and defiant appearance, with strange, wild, prominent eyes, talked incessantly and incoherently, and could not rest for a moment. She flung herself about, writhed, and gesticulated; clutched hold of any objects within her reach; violently resisted and struggled with all who endeavoured to restrain her; laughed, shouted, screamed, and sang; called upon various friends by name; and made use of profane and occasionally obscene expressions. She displayed numerous vague and fleeting delusions; stated that the reporter was her son; and affirmed that she had cancer of the stomach. She was a thin, pale-faced, clear-skinned woman, with brown hair and grey eyes. The pupils were dilated, equal, and mobile. Tongue slightly furred in centre. Bowels constipated. Appetite poor. Pulse 100; irregular and feeble. Temperature 99°·1. The characteristic signs of Graves's disease were present as already described. The right lobe of the thyroid was somewhat more enlarged than the left, and the left eyeball was more prominent than the right. The ordinary motor and sensory functions appeared to be unimpaired, and the special senses were good.

For several weeks after patient's admission her mental condition was one of alternate tranquility and violent excitement. After sleeping well for one or two nights, and spending a few days in a tolerably subdued manner, she would become sleepless, restless, and acutely excited. She broke panes of glass, threw the furniture about, rushed wildly about the ward, tore her clothes off, chattered incoherently, mimicked what was said in her hearing, and made strange grimaces; said that she was an angel, accused her husband of incarcerating her in an asylum through jealousy, assailed everyone whom she met with foul and abusive language, and shouted till she was hoarse. Her appetite was very capricious, and great difficulty was experienced in persuading her to take sufficient food. For some days she suffered from obstinate vomiting. Temperature varied from 98°·2 to 100°·4. The pulse was much accelerated, varying from 134 to 160.

The further progress of the case is summed up under the following dates.

January 25th, 1882—(Two months after admission). The intervals of quietude are now much more frequent and more prolonged, but patient is still in an extremely irritable and excitable condition. When secluded from the other patients she behaves in a subdued and rational manner, but on the slightest provocation she has an outburst of hysterical excitement. She is very weak and emaciated, and there is little improvement in her general health. She, however, has a better appetite, and suffers less from sickness. The temperature is now normal, but the pulse continues rapid (148). There is no change to note in regard to the palpitation of the heart, the enlargement of the thyroid, or the protrusion of the eyes.

February 28th.—Since last note she has had a mild attack of tonsillitis, and has suffered from severe headache. Every effort is being made to improve her general health and nutrition, but, although she takes her meals heartily, she has lost 14 pounds in weight since her admission. She has made considerable progress, however, in regard to her mental state. She is often very subdued and sensible, and at such times discusses her present condition in an intelligent, though sad, manner, expresses grief at being separated from her husband and family, and asks plaintively when she will see them again, and if she will ever be better. If, however, her thoughts are allowed to dwell on such subjects, she becomes excited, begins to talk loudly and quickly, and soon incoherently and wildly, cries out, laughs, sheds tears, and displays violent agitation of a hysterical character.

March 11th.—Yesterday morning, patient, without any warning, suddenly fell down in an unconscious condition. She came to in a few minutes, but for some time she displayed great mental confusion, mistaking the officials for old acquaintances. The pulse, taken immediately after the seizure, was 32 in the minute, with occasional rapid double beats. This morning she had a similar attack of fainting, but with less loss of consciousness. There were no motor phenomena, but she complained of a numb feeling in her left arm, and spoke of her attack of yesterday as a paralytic stroke.

April 26th.—She was to-day removed to the hospital of the institution, in order that she may be more disposed to employ herself in a domestic manner, and that she may benefit by the nursing and greater quiet. Her mental condition is very much improved. Her periods of excitement are much less frequent and much milder, and she displays greater self-control. There is still, however, great instability of the emotions, and a proneness to hysterical manifestations. She is visited regularly by her husband, and, although often much affected by their meeting, she behaves and converses in a sensible way, and is extremely anxious to return to her home and its duties. She has gained a few pounds in weight, but she is still wretchedly thin, and otherwise it cannot be said that there is much improvement in her physical condition.

The thyroid swelling appears to be painless, and not to interfere with deglutition or respiration. The voice, however, is weak, high-pitched, and somewhat husky and squeaky. The action of the heart is rapid and irregular, with a bounding impulse. There is a soft systolic murmur audible over the whole præcordial region and along the carotids, and there is a loud continuous bruit in the neck at the borders of the tumour. The exophthalmos is very distinct; the left eyeball is more prominent than the right. She suffers at times from headache, ringing in the ears, giddiness, and a sense of fulness in the head, and she is subject to general flushings and excessive perspirations. She was to-day ordered to have the bromide of iron.

May 26th.—In the beginning of this month she menstruated for the first time since the birth of her child. Her general health is considerably improved, and she has gained seven pounds in weight within the last fortnight. She works diligently in the hospital, and, except for frequent periods of depression and subdued emotionalism, she behaves very rationally. She converses in an intelligent and cheerful manner, and is very grateful for the attention she receives, and very willing to be of use.

June 23rd.—Has gained eight pounds' weight since last note. Still displays at times great irritability and emotionalism, but on the whole appears to be making steady progress both mentally and physically. She is, however, still troubled with the feeling of fulness in the head, and with flushing and perspiration. The flushing is general, and so intense that patient says "it is like having a hot iron run all over her body." The perspiration, also, is excessive, and generally comes on immediately after her drinking however small a quantity of fluid.

July 23rd.—Last night she had two seizures, in which she lost the power of the left arm and leg, and had a feeling of numbness in those limbs, and all over the left side. This feeling had passed off in the morning, but she feels very faint, and has a severe frontal headache.

September 8th.—Since last note she has had several returns of the feeling of impaired power and numbness in the left limbs, and each attack appears to be more severe than its predecessor. She has been confined to bed for the last few days, suffering from sensations of faintness, sickness, and giddiness. This morning her face was noticed by the attendant to be quite livid, and the surface of left arm was very pale and mottled with small purple patches. The numb feeling is very pronounced to-day. Patient states that it is "like needles and pins," and that it occupies the left arm and leg and exactly the left half of the head and trunk, being limited by the mesial line. Over the affected area tactile sensation is much impaired, while the sense of pain is increased. On the right side sensation appears to be normal. Owing to the fault of touch and the sudden losses of power in the left arm, patient often lets fall in an unexpected way anything that she happens to be carrying in her left hand. The special senses are not, apparently, affected to any great extent. (It may be remarked that patient has a

respectable horror of being "experimented" upon, and generally declines to answer questions prompted by scientific curiosity.) The occurrence of the above-described nervous phenomena is much to be regretted, since, in other respects, patient's condition is very satisfactory. She now presents a well-nourished, healthy appearance, displays much greater self-control, and is a general favourite in the hospital, where she works very diligently when she is able. The leading features of the exophthalmic goitre seem to cause her less annoyance, and the prominence of the eye-balls is, if anything, less marked.

November 1st.—The improvement in her mental condition and her state of nutrition continues, but the motor and sensory phenomena on the left side have become more pronounced, and the cardinal symptoms of her disease show no signs of amelioration. The exophthalmos is very marked, the left eye protruding in a painfully striking manner, and the lids do not completely cover the eyes in sleep. The heart's impulse is very powerful, and a soft systolic murmur is audible as already described. Pulse at wrist 116 ; full and bounding. Urine : Highly acid ; no albumen or sugar ; deposit of amorphous urates. Appetite good ; tongue tremulous ; bowels regular. There appears to be no alteration in the size of the enlarged thyroid. There has been no return of the menstrual discharge. Patient has been having the bromide of iron for the last six months, but, as it now makes her sick; she has been ordered instead tinct. digitalis ♏ 10 four times daily, and efforts are being made to promote menstruation.

November 17th.—Has been feeling very ill for some days, and for the last two days has been vomiting persistently, apparently with little nausea. She has been given small doses of calomel frequently repeated, and she feels considerably better to-day. The left side and limbs are numb, and the arm and leg quite powerless. She frequently tumbles out of bed owing to her want of balance. There is slight inflammation of the left conjunctiva, and the face is at times intensely flushed.

November 19th.—She appeared to be rather better yesterday, but was very weak, and was unable to swallow. At 2 p.m. she suddenly became unconscious. She never rallied, and at 12.10 this morning she died.

Autopsy 36 hours after death.—Body well nourished. Cadaveric rigidity present in limbs. Eyeballs imperfectly covered by lids, and abnormally prominent, the left protruding more than the right ; their tension is below normal. Pupils equal, dilated. Left conjunctiva presents an injected appearance.

Head.—Skull-cap symmetrical ; bones normal in consistence ; hyperæmia of inner table, especially in bones of base. Dura-mater not abnormally adherent, but thick, and in some places easily divisible into two layers ; at base much injected. On removing the dura-mater the convolutions of the right hemisphere present a flattened and glazed appearance, while those of the left have a healthy look. The pia-

mater on both sides is considerably injected, and there is some opacity of the arachnoid along the lines of the sulci, the membranes being especially affected over the right hemisphere. The vertebral, basilar, and internal carotid arteries and their branches, as far as they can be traced, and the optic tracts and cranial nerves show no signs of disease. About one inch from the great longitudinal fissure on the right side and covering the ascending frontal and ascending parietal convolutions, to the extent of a half-crown piece, the pia-mater is thick, œdematous, and much injected, and the underlying convolutions feel soft and pulpy. The membrane on being removed from this area drags off with it a layer of the cortex, leaving a rough, pulpy surface studded with minute hæmorrhages. There are numerous adhesions of the pia-mater over the whole of the superior and lateral aspects of this hemisphere, and along the marginal convolutions of the longitudinal fissure, but over the tip of the frontal lobe and the under and inner surfaces of the hemisphere adhesions are absent. In some places the whole depth of the cortex comes away with the membrane. Over the left hemisphere the pia-mater has no adhesions. On slicing the right hemisphere the whole of the white matter presents a pinkish, mottled, and injected appearance, the puncta vasculosa being very large and numerous ; while the cortical matter is universally soft, red and swollen, different convolutions being affected in various degrees. In the situation already referred to and in a few scattered convolutions in the posterior third of the hemisphere, the cortex is broken down into soft pulp full of small red spots and extravasations. In the left hemisphere the grey matter of the cortex is much injected, but otherwise does not present any striking abnormality. There is hyperæmia and mottling of the white matter, but this is less marked than on the right side ; the frontal and parietal lobes are most affected, the temporo-sphenoidal less so, and the occipital least. The optic thalami and corpora striata show slight hyperæmia, but no gross lesion, and the same condition is present in the pons, medulla oblongata, and cerebellum. The floor of the fourth ventricle, however, is distinctly injected. On removing the orbital plates the orbits are found to be tightly packed with adipose tissue, the contents of the left feeling tenser than those of the right, but the vessels, nerves, muscles, &c., present no abnormality.

The encephalon weighs 49 ounces. The cerebellum, pons, and medulla oblongata weigh, together, $6\frac{1}{2}$ ounces.

Thorax and Neck.

Heart, &c.—No fluid in pericardium. A few white patches on surface of ventricles. Slight dilatation of cavities, with slight hypertrophy of walls. Weight $10\frac{1}{2}$ ounces. Valves normal. Aorta somewhat dilated ; slightly atheromatous. The left vertebral artery arises from the arch of the aorta between the left carotid and left subclavian arteries.

Lungs.—Some hypostatic congestion. Otherwise normal.

Thyroid and Thymus Glands.—The thyroid gland is much and uniformly enlarged, and firm to the touch. The right lateral lobe measures $3\frac{1}{2}$ inches in length, $1\frac{1}{2}$ inch in breadth and nearly $1\frac{1}{2}$ inch in thickness at its thickest part. The left lateral lobe is $3\frac{1}{4}$ inches long, nearly $1\frac{1}{2}$ inch broad, and nearly $1\frac{1}{2}$ inch thick. The lateral lobes are connected anteriorly a little above their lower ends by a middle lobe, which, separated from the right lobe by a deep groove, proceeds upwards and to the left, reaching as far as the central notch of the thyroid cartilage, and lying to the left of the central ridge. This lobe is conical in shape, and measures $2\frac{1}{4}$ inches in length and $\frac{1}{2}$ inch in breadth ; the upper extremity is separated from the rest of the lobe by a deep furrow. The apex of the right lobe extends for half an inch, and the apex of the left nearly a quarter of an inch, posteriorly, above the superior border of the thyroid cartilage ; while the inferior extremity of the left lobe reaches to a slightly lower level than that of the right. The lobes embrace, but appear not to compress, the larynx, the lower part of the pharynx, and the upper parts of the trachea and œsophagus, leaving between their posterior borders a space of half an inch. On cutting into the gland a few cysts are found in the right lobe, each about the size of a pea, and containing white waxy-looking "colloid" matter. No abnormality is noticed in the vascular supply, except that the arteries, and more particularly the venous plexuses, are more voluminous than usual.

Extending from the lower border of the thyroid gland down in front of the great vessels into the anterior mediastinal space lies the remarkably large thymus gland. It is of an irregularly triangular shape, with the base directed downwards, and consists of two flat triangular lateral lobes which are firmly connected along the middle line by fibrous tissue, and are themselves irregularly lobulated. The apex of each of these lobes is attached to the inferior extremity of the corresponding lobe of the thyroid gland by fibrous tissue and blood-vessels. The gland measures $3\frac{1}{2}$ inches from base to apex, $3\frac{1}{2}$ inches from side to side, and $\frac{1}{3}$ inch in thickness. It has a firm, fleshy feel. Its vascular supply is normal.

The sympathetic cord in the neck, on being dissected out for future examination, shows no appearance of disease.

Abdomen.—Liver normal ; weight, $33\frac{1}{2}$ ounces. *Spleen* 7 ounces in weight. *Kidneys* hyperæmic ; capsule of left adherent in places, right $5\frac{1}{2}$ ounces ; left 6 ounces. *Uterus* and appendages normal. *Intestines* healthy.

Microscopical Examination—The following parts were examined. The cerebral convolutions, portions being taken from the right and left frontal, parietal, occipital, and temporo-sphenoidal lobes ; the opto-striate bodies, pons varolii, medulla oblongata, and cerebellum ; the superior cervical ganglia of the sympathetic (the middle and inferior ganglia were unfortunately not examined) ; and the thyroid and thymus glands.

Cerebral Convolutions.—(The sections were accidentally kept too long in spirit; but the following appearances could be made out). In the left hemisphere there is some slight thickening of the pia-mater, with injection of its vessels; the vessels of the cortical and medullary matter are strikingly engorged with blood; the nerve elements seem to be little affected. In the right hemisphere there is considerable irregular thickening of the pia-mater, with proliferation of its nuclei, and engorgement and thickening of the vessels; the brain-tissue presents a broken-down appearance, and in the neighbourhood of the soft foci numerous granular and dwindled cells and free nuclei are seen; there is marked hyperæmia, and the vessel-walls are thick and show proliferation of the nuclei; the tips of the frontal and occipital lobes are much less diseased than the other convolutions.

Opto-striate Bodies, Pons, Medulla, Cerebellum, and Optic Nerves. The sections display no abnormality, except that a very few granular, fuscous cells are to be found in the medulla oblongata.

Superior Cervical Ganglia.—While many fairly healthy cells are to be seen, the greater number are more or less pigmented, and many are slightly atrophied. The pigmented patches are very distinct in many cases, and in a few instances the whole cell is replaced by a brownish or orange-coloured mass. There is some increase in quantity of the connective tissue, but in other respects the ganglia appear to be normal, and the sections from the right ganglion cannot be distinguished from those of the left.

Thyroid Gland.—There is considerable thickening of the fibrous capsule and the connective tissue framework, and the vessels are large. The vesicles are of various shapes and sizes, and many have coalesced, forming large irregular spaces. They contain colloid matter and some corpuscles, and in most cases the epithelial lining can be made out. Irregular masses of colloid are also to be found outside the vesicles. Along the periphery of the gland, immediately inside the investing membrane, is a richly corpusculated belt, in which follicles can be seen, apparently, in different stages of development. Nearest to the surface, in the midst of the granular-looking mass, one can detect small groups of cells arranged in a more or less concentric manner, and proceeding inwards towards the open, alveolar part of the gland, one finds small round and oval follicles stuffed with cells, and finally normal vesicles, with cell contents. The same appearances are observed in small islets thinly scattered over the rest of the section. Each section thus presents evidence of true hypertrophy of the gland in one part and wasting in another.

Thymus Gland.—In the capsule, septa, and interfollicular trabeculæ there are scattered streaks of adipose tissue, and in some places fat and connective tissue have encroached to a considerable extent on the proper substance of the follicles, but otherwise the sections are those of the normal thymus gland.

Commentary.—This case presents several interesting features,

of which the following appear to deserve some consideration :—

1. *The fact that the patient was a native of a goitrous district.**

2. *The order of invasion of the phenomena of the exophthalmic goitre;* the occurrence of violent vomiting, followed first by the enlargement of the thyroid gland, next by exophthalmos, and finally by nervous palpitations. According to most authors, palpitation is the first phenomenon observed, but numerous cases have been recorded where either the exophthalmos or the goitre was the first symptom. The same order of development as in Mrs. G.'s case occurred in cases reported by Dr. Sutro and Dr. Sutton.† In Dr. Sutton's case it is interesting to note that "acute paraplegia, seemingly due to *acute softening of the cord,* supervened on the Graves's disease, not only was there complete loss of motor power and sensibility, but extremely troublesome bedsores also formed, and yet she recovered."

3. *The mental disorder.*—Psychical disturbances have always been noted in cases of exophthalmic goitre, and instances of actual insanity have been recorded.‡ The irritability, capriciousness, emotional excitability, the hysterical manifestations, the alternations of excitement and depression, characteristic of the disease, were all present in Mrs. G.'s case, and exaggerated to the extent of acute mania.

4. *The further development of the symptoms.*—The progress from a state of acute maniacal excitement, accompanied by extreme emaciation and bodily exhaustion and all the distressing symptoms of Graves's disease, to a condition in which the mania had subsided, the body had become strong and well nourished, and the exophthalmic goitre had almost ceased to annoy, was both interesting and gratifying. For some time the patient's prospects of ultimate recovery seemed excellent, but soon after the appearance of the motor and sensory phenomena on the left side, long fore-shadowed by the prominent left eye, it became evident that cerebral changes of a grave character existed.

* See Mitchell, On the Nithsdale Neck or Goitre in Scotland, "Brit. and For. Med. Chir. Review," April, 1862.

† Sutro, "Medical Times and Gazette," Dec. 26, 1868. Sutton, "Brit. Med. Journal," Aug. 3, 1878.

‡ See papers on the subject by Dr. Alexander Robertson, "Journal Mental Science," January, 1875, and Dr. Savage, "Guy's Hospital Reports," Vol. xxvi. Also Williams, "Lancet," Nov. 17, 1877, and Cane, "Lancet," Dec. 1, 1877.

5. Among the *secondary symptoms* the most remarkable were the sudden profuse perspirations, the intense flushing and burning heat of the skin, with the tendency to skin diseases, and the digestive disturbances.*

6. The most striking of the *post mortem* features were the red softening of the convolutions of the right hemisphere, the condition of the sympathetic and thyroid, and the presence of the large thymus gland. In a case of exophthalmic goitre recorded by Dr. Markham,† "The thymus was remarkably enlarged, weighing two ounces and a half; it passed down along the anterior mediastinum, ending in two lappets, one of which, larger and broader than the other, lay across the pulmonary artery, and apparently pressed upon it. The structure of the gland was perfectly normal." In this case also the thyroid enlargement appears to have been the first symptom of the disease. Dr. Goodhart‡ describes a case of Graves's disease in which "a part of the thyroid ran down to a mass in the mediastinum, which consisted of a great overgrowth of the connective tissue. The lymphatic glands were enlarged, and the thymus gland was large, encapsuled, and not adherent to the tissues around." In another case§ of the same disease the thymus was found enlarged.

A Case of General Paralysis in a Woman. By F. M. Cowan, M.D., Physician to the Meerenburg Asylum, Holland.

In the Asylum Report of last year I published the case of a woman suffering from general paralysis. The post-mortem was somewhat different from that generally met with in this disease. After reading the article of Dr. E. Mendel ‖ I venture to publish this case, as I arrived at nearly the same conclusions as this able alienist physician.

Some 25 years ago this case would have been considered a curiosity only on account of the subject being a female.

* See Dr. Burney Yeo's interesting cases and remarks, "Brit. Med. Journal," March 17, 1877; and Cheadle, "Lancet," June 19, 1869.

† Markham, "London Path. Society's Transactions," 1858.

‡ Goodhart, "Brit. Med. Journal," Dec. 6, 1873.

§ Howse, "Brit. Med. Journal," April 21, 1877.

‖ Ueber Hirnbefunde bei der progressiven Paralyse der Irren. "Berliner Klinische Wochenschrift," No. 17. 1883.

Since the days when Bayle and Baillarger studied this disease, a large number of similar cases have occurred, and almost every asylum physician has met with them.

I shall now give an account of the case, and add my remarks afterwards :—

P. B., æt. 36, was admitted into the Meerenberg Asylum on the 5th of July, 1882, and displayed all the symptoms of a general paralytic in the demented stage.

We learn from her previous history that immorality was hereditary in her family. Her mother had led a very immoral life, and the patient herself had been the inmate of a low house at Amsterdam. She afterwards married and had two children, both of them alive and healthy. As far as I could learn, she never had a miscarriage. Her father died while she was still a child; her mother lives, and is well. This was all the information we could obtain about probable heredity.

On her admission it was clear that she was not aware in what place she was. She used to sit in the same place for a long while, taking no notice of persons or things surrounding her, and was heedless of the calls of nature, passing stools and urine without being aware of it. Only when spoken to she used to weep piteously, and the amount of tears she shed was very great ; they did not trickle down her face, but ran down in two continuous streams. The weeping fits lasted about an hour, after which the woman would settle down into her usual apathy.

There was a continual twitching of the facial muscles, especially of the zygomatici. The pyramidalis nasi and the depressor anguli oris were often contracted, thus giving the face a sad expression ; this was heightened by an arching of the eyebrows and by her weeping when spoken to. The left naso-labial groove was more furrowed than the right. When no notice was taken of her she sat listlessly, with an apathetic expression. The pupils were unequally dilated, the left being largest. When required to do so, she protruded and drew back the tongue with a jerk. The tongue was slightly furred, was indented on its edge, and displayed the same muscular twitchings as the face.

A proper answer was not to be obtained ; a low moaning was the only response to any questions. However, it was clear she understood what was asked, as she opened her mouth, put out her hand, &c., when requested to do so,

although we had to repeat the order some three or four times.

I obtained a few sphygmograms, and they all gave us a very irregular curve; the line of ascent slanting and presenting a number of wavelets (two or three), the summit slightly rounded, the aortic notch in the line of descent very ill-defined.

The frequency of the pulse varied from 98 to 76 beats.

The temperature amounted to 36·8° of the centigrade thermometer, and in the evening rose to 38·1°

The gait was very bad; the patient used to stumble over very slight obstacles.

Appetite voracious; she used to bolt her food without chewing it, and it was necessary to cut it up, and she had to be fed at last, the more so because she used to miss her mouth and strike her fork against her cheek or chin.

The patellar reflex was exaggerated; at times very much so.

The lungs were normal, percussion giving negative results; auscultation, it seemed, frightened the poor woman. On applying the stethoscope, the breathing took the character of cogged-wheel breathing, while if watched during her sleep, the respirations were deep and regular. On auscultation of the heart, we sometimes heard a systolic blowing over the mitral valve.

The physician who had attended her previously communicated to us that she had been ill upwards of two years, and had passed through a maniacal period of great violence, and with the ordinary delusions of greatness.

A strict examination was made to discover any signs of previous syphilis; however, the result was altogether negative. No scars or swollen glands were to be met with. The only somatical (sit venia verbo) affections met with was an ulcer on the right shin, just over the crista tibiæ, of about the size of a penny-piece. Habits foul and destructive.

Very soon after her admission saliva began to dribble out of the corners of the mouth. On the 15th of October walking was entirely out of the question, and even sitting in a chair was impossible, as the poor woman kept dropping on the ground; she was consequently confined to bed. On the 1st of November a bad sore formed just over the sacrum, spreading symmetrically on both sides. Notwithstanding the greatest cleanliness and care it extended with almost lightning-speed; sloughing ensued, and the patient died on the 18th of November.

Let me add that during the whole disease she never had either apoplectic or epileptiform attacks.

Post-mortem 60 hours after death:—The skull was rather thickened, and hard to saw. Its inner surface was smooth and polished, nowhere displaying osteophytes or tumours of any kind.

The dura-mater (thickened) lies in folds over the frontal lobes. The arachnoid, where it bridges over the sulci, is dull, and looks like ground glass. The pia-mater peels off easily, save on the ascending frontal and parietal gyri and on the paracentral lobules.

The gyri of the frontal lobes are distinctly atrophied, leaving enlarged sulci between them in which lie dilated venous vessels.

On the summit of the right paracentral lobule is a depression large enough to contain a rifle bullet. On cutting through it, it appears that the grey matter is no more atrophied there than it is elsewhere, but follows the slope of the depression.

Weight of brain 1,170 grammes. The substance was œdematous. The grey matter was reduced to a mere lamella in the frontal lobes. The ependyma of the ventricles was covered with granulations, like so many dewdrops; this was particularly the case in the fourth ventricle.

The ventricles were dilated, and filled with a slightly turbid fluid. In the other organs nothing remarkable was found, with the exception of congestion of the lungs and a slight amount of fatty degeneration of the heart.

The results of the microscopical examination were most remarkable. As a rule, the neuroglia, the connective tissue of the brain, is the affected part. In our case the neuroglia was normal. There was only a slight amount of proliferation of nuclei in six slides out of forty.

Indeed the only changes met with were found in the nerve cells and the vessels.

The smaller arterial vessels were affected by endarteritis, which had greatly reduced their capacity. At very regular intervals the intima was bulged into the interior of the vessel, so as to narrow it to about one-third of its diameter, without, however, entirely obstructing it. This diminished arterial circulation caused a serious stasis and transudation into the pericellular spaces, resulting in atrophy and disintegration of the cells.

Dr. Mendel, in his paper, points out that the symptoma-

tology of this form must still be studied. In his case the patient was subject to repeated and severe apoplectic or apoplectiform attacks while the course of the disease extended over six years.

In the case above mentioned the symptoms were somewhat different. No attacks, and a duration of between two and three years.

May not the endarteritis have been of syphilitic origin?

Mendel denies syphilis most decidedly in his case. I believe the absence of any other lesion pointing to this disease renders it probable that it was not the cause in ours, although the previous history of the woman rendered such a cause very probable.

OCCASIONAL NOTES OF THE QUARTER.

The Case of Gouldstone.

First and foremost among the Occasional Notes of the Quarter the case of Gouldstone calls for comment. The observations to be made upon it will be ranged under the following heads: First, the history of the man and his crime; second, the examination in Court of skilled witnesses, with remarks on the futility of such examinations from a scientific point of view; and thirdly, the question of the legal dicta on responsibility.

First, then, the history of the patient.

His mother was insane at the time of his birth, and his mother's sister was, and is still, insane. In both these women there was well-marked melancholia, with the idea that ruin was coming upon them.

On the father's side, the father's sister was insane, and two cousins, one of whom died in an asylum, probably of general paralysis.

Thus Gouldstone came of doubly nervous parents. It may be said, Why have none of his brothers or sisters suffered from neurosis? I can only say I cannot tell, but that it may simply be but the want of the spark to cause the explosion. In Gouldstone the spark fell.

Gouldstone managed to make a fair living; he had no serious illnesses, and was a quiet, sober man. He seemed inclined to a solitary rather than a social life, and even

before his marriage he preferred to be alone rather than with others.

He had no special tastes and no special ability. His employment was that of a fitter of grates which had been sent up from the foundry. This required only steady, quiet, unoriginal work.

He was not emotionally religious, but went to church when he had a decent coat on his back.

He married a young woman of his own age and station, and in no way changed his ways.

He was punctual at his work, careful in its performance, and regular in his return home when it was done. He continued to go to church as long as his wife could go with him, and as long as his clothes were, to his idea, good enough.

When he had children at home he spent his spare time in playing with them, and was more fond than most artizans of his family, and cared for no other society.

His fellow-workmen looked upon him as odd and unsocial. He never made chums.

He would, like Joseph of old, tell strange dreams he had had, and he gave his fellow-workmen the idea that he half-believed what he told them. His dreams displayed heaven opened, and he heard God speaking to him.

At times he had dreadful dreams, and he had very severe pains in his head.

Besides these symptoms he had increasing trouble from a double hernia, and at times he said he wished he were dead. With his fellows he would talk about the easiest way to die, and whether it would be painless to be crushed by the lift. It can be seen from his fellow-workmen's letter that they thought him strange.

During the last year or two he managed to live and keep his family, but he rarely had animal food, and then in very small quantities, so that this nervously weak man was fighting a hard battle with feeble support.

His wife's last confinement approached, and he was in no way changed. When he heard there were twins he was not unnaturally disturbed, and went to his work on the next day, but on the annual holiday of the firm he did not go with his fellow-workmen to the bean-feast, but was at home, and appeared moody, and at times was in tears. It came out afterwards that at this time he—like his mother—contemplated suicide. He did not make any noisy, blus-

tering threats, but quietly rested while the morbid mental growth developed.

On the day of the killing he went to work as usual, and, as far as is known, he did his work well. But he was disturbed and restless in himself, and thought of his misery, and decided insanely to alter, but not to end it.

He even considered whether he should use a revolver or not. He is said to have taken more drink than usual to nerve him for the effort.

And now we come to the killing of his children. There was the calm action of a most determined criminal, an enthusiast, or a lunatic.

No passion, no haste, only steady, purposeful, but unreasonable slaughter.

He had worked out the problem in his weak mind that it were better for the children to go straight to heaven, and he did what he considered the best for them. If he had killed himself after the act, no one would have had a doubt about the insanity of the act, but he lived without seeming to care. That he knew he killed his children none can deny—he owned it more than once—and equally he knew that hanging was the penalty of murder.

He spoke and acted as if he had done a kind act to his wife, and bade her an affectionate farewell.

After the killing of his children, and his conveyance to the House of Detention, he seemed to be suffering from melancholia; so said the doctor, though for some reason his evidence was never given in Court.

He was not, like the passionate criminal, overpowered by the sense of his deed. He slept fairly, and took his food.

In the interview I had with him he talked in a calm, uninterested way, quite unlike the callousness of a villain or the justification of the pretended lunatic. He did not try in one way or another to excuse himself, or make light of his deed. He talked as if he were narrating something which had occurred to someone else.

In this his manner contrasted markedly with that of a murderer I once before examined, who was only too anxious to make the most of his nervous relations, his own injuries to his head, and of forgetfulness of his act. The man is a physically weak man, with a small head, and with features of a dull, but not brutal type. I would say, too, of his brothers who appeared in Court, that they all had the appear-

ance of dull men, and their examination showed them to be intellectually weak and slow of perception.

I would, then, sum up the case in this way. A man with strong direct inheritance of insanity is reduced by bad feeding, pain, and worry, to a condition of misery that was diseased. It was melancholia out of relation to its causes and its end. The whole thing was as is general in mental disorder—a morbid development, not a devilish afflatus.

As to my examination in Court, I can only say that the skill of the prosecuting counsel and the ruling of the Judge made my opinion appear to be that the prisoner was responsible. I could only say "yes" when asked if the man knew he had killed—I objected to the term "murdered"—his children, and again I could only say "yes" when asked if he knew the punishment he had incurred. It would have been folly, as well as false, for me to have said otherwise.

But I distinctly added that I believed him to be insane at the time the act was committed. One most important point was made out of the fact that I said that I could not certify from facts observed by myself in my interview of from 20 minutes to half-an-hour.

I have been blamed for this, but I would defend myself by saying that counsel strictly bound me down to answer simply and solely as to facts observed by myself. Some say that, as a physician, I was bound to take the history and the antecedent facts as part of the facts observed. This I must demur to, as in the signing of a certificate the facts observed by myself must be quite independent of information gained from others. I own this is often a foolish necessity of the law, but at present it exists. I did add that with the history and from the facts I believed him to be insane, but I was told by the Judge that this was not for me, but for the jury to decide. And the Judge's ruling quite outweighed my opinion.

Surely the jury have a right to be instructed by experts as well as by lawyers. Insanity and its various forms are not less difficult to understand than forms of law.

It would have been better that there should have been a contest of medical opinion, so that the jury should have heard the points for and against the insanity, rather than they should be wholly uninformed. It may seem strange that medical opinions should differ as they are seen to do in contested trials; but I for one do not see in this difference of

opinion untruth or dishonour. Medical knowledge is not as yet finite, and there are at least two sides to a shield.

I would suggest that, in any criminal case in which the medical officer of the House of Detention states any doubt about the sanity of a prisoner, the trial should not take place till several months' observation have transpired; thus a great deal of heart-burning would be saved, and some lunatics would not be tried as criminals.

Lastly, as to the test of sanity.

I fear the want of any exact knowledge of the causes of insanity must for very long leave us without any definition of the condition.

The lawyer will say, "Let common sense decide who are responsible, and what is to be meant by responsibility."

I know the most important safeguards are needed by society, so that the weak should be kept from becoming wicked, but at the same time I must protest against persons being punished for what they cannot help.

First, I would do away with all definitions of responsibility, and let each case be tried on its own merits. For just as a man is sane or insane in relation to his past history and to his surroundings, and not according to any standard that can be set up, so a man is responsible or not for his acts, according as they are the natural outcome of his uncurbed passions or are due to diseased conditions.

I grant that harm has been done in several ways by the medical expert, in too often and too indiscriminately dragging in such rare explanations as insane impulses alone.

Again, insanity is generally looked upon as like other acute diseases, which can be as readily diagnosed as fevers or heart disease.

It will not be understood in its criminal relationship till it is looked upon merely as the morbid life-growth from the diseased germ. The whole life has tended to irregularity, and in many, direct insane inheritance must be admitted to play a chief part in its production.

The subject is unsatisfactory, as may at once be seen from the different ways it is viewed by the public.

The suicide is always considered to be insane.

The testator, again, is practically considered sane, but it may be shown that he was insane without incurring odium.

But if a criminal is defended as insane, his defender runs a great chance of being looked at as criminal also.

Finally, are we to be bound by any definitions in giving our opinion? I should say "No." We have got rid of "delusions" as a necessary part of insanity. It is now, moreover, admitted that a "knowledge of right and wrong" is not necessary, and the question of loss of self-control and impulses is so delicate a one as to make it dangerous for an expert to attach much weight to it in giving evidence.

I am free to admit the fault lies in great part in our defective knowledge, but is also partly due to the habits of the law in exacting definitions from medical witnesses.

We can no more define insanity than we can by definition give an impression of a rainbow or a landscape.

GEO. H. SAVAGE.

The Case of Cole, and the Legal Procedure in ascertaining the Mental Condition of Prisoners.

It would be difficult indeed to conceive any circumstances more calculated to bring English Criminal Law into contempt than the results of the trials of Gouldstone and Cole for wilful murder. Our only consolation is that such pitiful exhibitions of the working of our present judicial machinery, in cases in which the plea of insanity is set up, may lead to some practical reform therein. Had any commentary been desired on the necessity of carrying out the Resolution* passed at the recent Annual Meeting of our Association, under the presidency of Dr. Orange, and again at the October meeting of the Metropolitan Branch of the British Medical Association, such commentary, written in letters of blood, has indeed been supplied by the occurrence of these two trials in rapid succession.

The great object of this Resolution is to secure a full and

* "That prisoners suspected of being mentally deranged should be examined by competent medical men as soon after the commission of the crime with which they are charged as possible, and that the examination should be provided for by the Treasury, in a manner similar to that in which counsel for the prosecution is provided. It is suggested that the examiners should be the medical officer of the prison, the medical officer of the County Asylum or Hospital for the Insane in the neighbourhood, and a medical practitioner of standing in the town where the prison is situated; that the three medical men shall, *after consulting together*, draw up a *joint* report, to be given to the prosecuting counsel, the cost being borne by the public purse, inasmuch as it is useless to tell an insane man that the burden of proving himself insane lies upon himself." (See Journal, Oct., 1883, p. 451).

deliberate examination of the accused before instead of after his trial, by competent medical men. In the cases of Gouldstone and Cole, the result to them, it is true, would have been the same, but with how much greater propriety, dignity, and economy! We should have been spared the spectacle of judges solemnly condemning to death, and clearly indicating it to be their opinion that it was a just death, men who were lunatics. We might also, perhaps, have been spared the spectacle of the oracle in Printing House Square gloating over what is regarded as the courageous action of juries in supporting the law against the wild and dangerous theories of "mad doctors." Had the deliberate examination we urge been made in the case of Gouldstone, instead of one of some twenty minutes at the eleventh hour (the deed was committed at least five months before), the man's mental condition could have been carefully tested without haste; and in the case of Cole the same course would have exposed his insane condition for years previously, and all the facts bearing upon it would have been procured at leisure. Important in such a case, also, is the circumstance that his wife could not give evidence in court, while her intimate knowledge of his history would have been of the highest value to a medical commission. Again, the law requires a man in such instances to prove himself a lunatic; but is not this a mockery of justice? How can a poor prisoner afford to pay? Counsel may, indeed, be assigned to defend the prisoner too poor to pay, but this is at the last moment, and what possible chance has he of doing justice to his client? None; for it is then too late to make a skilled inquiry into and study of the facts of most value in the determination of the prisoner's insanity. The effect of this Resolution would be to prevent a repetition of circumstances that make the interference of the Home Secretary imperative; for, we repeat, it cannot be other than prejudicial to the respect that we should always wish to see entertained for courts of law, to go on continually convicting and sentencing lunatics to the gallows, and then reprieving them—a game which may be all very well for cats and mice, but is scarcely worthy of being engaged in by those who uphold and those who break the law.

Nor are these trials less remarkable as commentaries upon the proper mode of understanding and interpreting the legal test of insanity to which, truth to say, we are almost weary of referring. As those who have read Mr. Justice Stephen's work on Criminal Law, reviewed in this Journal in July

last, are well aware, he reads between the lines of the *dicta* of the Judges of 1843, and charms his psychological readers with the conclusion that the knowledge of right and wrong does not merely refer to the law of the land, but involves the question whether the accused was able to judge of the moral character of the act at the time he committed it, not merely in an abstract sense, but for himself, under the special circumstances of his own delusion or loss of control.

So liberal a construction of the test seemed to open the way to a sort of compromise between medical and legal opinions. Now, what from this point of view is so noteworthy, is that neither of the judges who presided over these trials (Mr. Justice Day and Mr. Justice Denman) appear to have had the faintest idea of such an interpretation of the terms. On the contrary, they obviously understood them in the baldest, most literal manner possible, but not otherwise, we are bound to say, that we supposed that they would understand them. Thus, Mr. Justice Denman, in addressing Cole, told him he could not doubt that he knew he was doing wrong. "You knew," he added, by way of explanation, "that you acted contrary to the law of this country." Whatever loss of control there might be was due to "passion." His Lordship did not, with Sir James Stephen, say that any one would fall within the description of not knowing he was doing wrong "who was deprived by disease affecting the mind of the power of passing a rational judgment *on the moral character* of the act which he meant to do" ("Criminal Law," Vol. ii., p. 163). Nor did he tell the jury that the law when properly construed allows that "*a man who, by reason of mental disease, is prevented from controlling his own conduct, is not responsible for what he does*" (p. 167); nor yet that if a man's succession of insane thoughts is so rapid as to confuse him and render him unequal to the effort of calm sustained thought, "*he cannot be said to know, or have a capacity of knowing, that the act which he proposes to do is wrong*" (*Op. cit.*). That such is, after all, the proper way of understanding the *dicta* of the judges was equally foreign to the mind of Mr. Justice Day. The judges succeeded also in conveying to the juries the impression that they must take the meaning of the terms in question in the sense in which they have been hitherto understood. All we have to say on this aspect of the matter is, that either official sanction must be given to the interpretation of Mr. Justice Stephen, or the words themselves must be so altered as to make their mean-

ing plain to jurymen, and not only to them but to the judges themselves. The difficulty, however, presents itself that, not only do most judges lay down the law in the old-fashioned sense, but they do not conceal their sympathy with this interpretation, and they would regard it as a subterfuge were a medical witness to reply—"Yes," in the sense attached to the words by Sir James Stephen to the question—"Did the prisoner know that he was doing wrong?" In Gouldstone's case, for instance, Dr. Savage felt that to do so would be an evasion of the real meaning attached by the Court to the expression, and unworthy of a scientific witness.

Another point to which one of these cases forcibly calls attention, is the neglect of the obvious symptoms of insanity in a man from whom homicidal acts might have at any time been expected. From what has transpired during and since his trial, we find that Cole was in good work up to 1877, and attentive to his wife and children; that then he fell out of work, left home to seek it, and was found by the police, who took him to the Croydon workhouse infirmary as a wandering lunatic. When his wife went to see him he looked ill and strange, and did not know her; he thought she was dead, and that he was there for killing her. Unfortunately, instead of being placed under proper medical treatment in an asylum, he was allowed to go home in a week's time, and frightened his wife by his mad actions, nailing down the windows, &c., and placing a large knife under his pillow. The insane suspicions which marked his case then have never left him, and the wife had to earn a living by caning chairs, which he would sometimes smash to pieces, the reason assigned being that she was electrifying him. At night he was sleepless, and would walk the room, hearing imaginary noises, and declaring that strange men were concealed in the house. A medical man saw him in 1879, and said he was dangerous, that everything must be kept out of his way, and that he couldn't understand why he had been allowed to go home from the workhouse instead of being sent to an asylum. So he went on, fancying when in the house that his wife was trying to poison him, and when out of it that people were watching him in the street, and even assaulting them on this ground. His wife expected that he would commit some violent act, and that she would probably be the victim, but she does not appear to have thought he would injure their child, of whom he was very fond. The poor woman applied to the magistrates, but they comforted her by telling her that

they could do nothing till he had committed some act. They referred her, however, to the relieving officer, and in consequence the parish doctor examined Cole, and gave her a certificate on which he was removed to the infirmary. Here was a second opportunity for doing something, taking care of the lunatic, and averting a dreadful catastrophe. But in vain. He was sent out in two days as mad as ever, and his wife, in mortal fear, called in the doctor, and he attended him at home. Soon after the man killed his child. All the day he had been walking about the house with a hammer and chisel, following his wife, who eventually managed to take them from him and conceal them. The wife at last went for a policeman, and when at the gate heard a noise in the house which induced her to return, when she found he had done the deed for which he was tried, and which we maintain might and ought to have been prevented by placing him in an asylum long before. This is the moral of the story. We have no desire to ignore the fact that Cole was an intemperate man. But we are satisfied that he was a sober man up to the time that he became insane in 1877, and that his giving way to drink was one of the symptoms of his madness, although doubtless a further aggravation of it. But while it may be impossible to gauge with precision his moral responsibility in relation to the intensity and continuance of his mental disorder, proof is not wanting that he had been sober for at least a week before the fatal act was committed. In a word, this was not the result of drink, but the outcome of a long, lasting state of delusional insanity. Had he joined the Blue Ribbon Army for months before, his delusions and their logical development in violence would have been the same. Add to this, that in consequence of his inability to earn a livelihood through his mental infirmity, he was wretchedly poor, and his brain was consequently ill-nourished, and rendered more and more a prey to suspicion.

The conclusion, then, to which we earnestly draw attention, in the interests alike of the law, of life, and of the lunatic, is the necessity of reforming the mode of Legal Procedure in ascertaining the Mental Condition of Prisoners.

D. H. T.

PART II.—REVIEWS.

Thirty-seventh Report of the Commissioners in Lunacy, March 31, 1883.

No department of the public service has more important functions to discharge than that which is administered by the Commissioners in Lunacy, and to no class of public officials is the country under greater obligation for the painstaking and enlightened discharge of the duties which devolve upon them, to a record of which for the year 1882 we have now to direct attention.

The returns made to the Lunacy Office, unfortunately, show that the progressive increase in the total number of registered insane persons still continues, and has advanced since the 1st January, 1882, by 1,923, thus bringing the total up to 76,765, or, including 356 lunatics so found by inquisition residing in private houses, and 75 insane male convicts, to 77,196, or one in every 346 of the estimated population, the proportions of private patients and paupers being 8,729 of the former to 76,840 of the latter.

As a bald statement of facts this would seem to convey a sad imputation upon our 19th century civilization, and afford but a gloomy prospect for future years.

The Commissioners, however, in the following words, show that, when explained, the facts do not support so gloomy a view. They say: "The average annual increase of the last three years on the whole of the pauper class has been 1,757, or 248 above the annual yearly increase of the whole decennial period ending 1st January, 1882. This increase is, however, more than accounted for by the diminished death-rate in County and Borough Asylums during the last three years as compared with the preceding ten years, the mortality during 1880, 1881, and 1882 having fallen 1 per cent., thus giving a death-rate upon the average daily numbers resident of about 9·5 per cent., instead of 10·5 per cent. per annum.

"Taking the average daily number resident in County and Borough Asylums for the three years at 42,000, the diminished death-rate of 1 per cent. would account for an increase in the insane population of these establishments of 420 a year, or of 1,260 at the end of three years.

"Among the private patients the ratio to population has of late years been practically stationary, but the proportion of the pauper class, deemed to require care and control, continues steadily to rise.

"During the last seven years, however, the increase in the annual occurrence of fresh cases of insanity, pauper and private, as indicated by the yearly admissions of new cases (transfers being excluded) into establishments for the special care and treatment of the insane has not been in excess of the annual increase in the general population.

"It would thus appear that, if we take the total population, the proportion of persons attacked with insanity is not at present on the increase, and that the addition made annually to the total number of certificated insane persons maintained under care and control is due almost entirely to the accumulation of chronic cases."

With the burden of lunacy pressing as heavily as it does upon the sane part of the community, this statement, supported as it is by reference to facts, is eminently satisfactory.

During the past year the private patients have increased in County and Borough Asylums by 70, in registered Hospitals by 101, and in Naval and Military Hospitals by 21; but they have decreased in licensed houses by 11, in the Broadmoor Asylum by 10, and as single patients in private charge by 1.

The pauper patients have increased in County and Borough Asylums by 1,304, in registered Hospitals by 6, in Broadmoor Asylum by 21, in the Metropolitan District Asylums by 363, and the outdoor pauper lunatics by 142, but they have decreased in licensed houses by 74, and in ordinary workhouses by 9.

The average annual increase of pauper lunatics of the preceding 11 years has been largely exceeded in 1882 in Surrey, Kent, Gloucestershire, Worcestershire, Derbyshire, Nottinghamshire, Cheshire, Devonshire, Cambridgeshire, and the West Riding of Yorkshire. On the other hand, in Middlesex, and in several of the agricultural counties, the contrary has been the case.

It is interesting to notice that the ratio of admissions into establishments for the insane in the year under review, omitting transfers and the admissions of idiots, has been lower, with one exception, than in any year since 1874.

While the total ratio of paupers to population has again shown the usual decrease, that of pauper lunatics to paupers goes on steadily augmenting year by year.

The distribution of pauper lunatics is extremely suggestive, for whereas the proportion in establishments shows a gradual annual increase, that in workhouses and in private houses progressively diminishes. The four-shilling grant, and the

increasing confidence of the public in asylum care, are working out their necessary results. In 1873 there were 59·81 per cent. of pauper patients in asylums, hospitals, and licensed houses, 26·92 in workhouses, and 13·27 with relatives and others. In January, 1883, these proportions had changed to 65·74, 25·17, and 9·09 respectively.

The patients admitted into the several classes of asylums, and as single patients, during the year 1882, numbered 15,665—7,683 males and 7,982 females, of whom 1,836 were transfers. Those discharged recovered were 2,361 males and 3,011 females, total 5,372; and the deaths numbered 4,785, of which 2,703 were men and 2,082 women.

Excluding transfers and admissions into idiot-establishments, the percentage of recoveries upon the admissions was, for males, 35·39, and for females 43·27, or for both sexes 39·41, which agrees as nearly as possible with the average results of treatment for the last ten years.

The proportion of deaths to the daily average number resident was, for males 11·11, for females 7·37, and for both sexes 9·11, showing a reduction of nearly 1 per cent. upon the average of the last 10 years.

Of the non-congenital patients admitted in 1882, 63·3 per cent. were suffering from their first attack of insanity, while of the total number of patients admitted 9·2 per cent. were epileptics and 8·5 per cent. general paralytics; 4 per cent. only of private patients, as against 10·2 of paupers, being epileptics, and 6·3 per cent. of private patients, as against 8·9 per cent. of paupers, being general paralytics.

Men were epileptic one-third more frequently than, and general paralytic more than four times as frequently as women.

The suicidal propensity was stated to have been present in 28·6 per cent. of the total admissions, and the deaths by suicide were in all 17, 14 of them being in County and Borough Asylums (two while out on trial), one in a registered hospital (the injury having been inflicted previously to admission), one in a provincial licensed house, and one in single care.

The proportion of deaths in which post-mortem examinations were made has been as nearly as possible identical with that of last year, and has amounted to upwards of 58 per cent.

We here repeat our table showing the assigned causes of insanity in three classes of patients, in which there is but little departure from the percentages of the previous year:—

Causes of Insanity.	Proportion per cent. to the Total Number of Patients in each Class Admitted in 1882.								
	Private.			Pauper.			General Paralytics.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.
Moral—									
Domestic trouble (including loss of relatives and friends)	5·0	11·4	8·1	4·0	10·1	7·1	3·8	9·6	4·9
Adverse circumstances (including business anxieties and pecuniary difficulties)	10·8	3·7	7·3	8·9	4·1	6·4	13·6	6·5	12·2
Mental anxiety and "worry" (not included under the above two heads) and overwork	13·4	8·7	11·1	4·4	4·8	4·6	7·0	1·3	5·9
Religious excitement	1·6	4·9	3·2	3·2	3·1	3·1	1·1	·4	·9
Love affairs (including seduction)	1·1	3·9	2·5	·6	2·2	1·4	·3	·9	·4
Fright and nervous shock	·6	2·8	1·6	·9	1·6	1·2	·3	—	·2
Physical—									
Intemperance, in drink	17·4	6·7	12·2	20·0	6·8	13·2	25·3	13·1	22·9
,, sexual	2·4	·2	1·3	1·0	·8	·9	3·0	3·0	3·0
Venereal disease	1·3	·1	·7	·4	·2	·3	1·0	1·7	1·1
Self-abuse (sexual)	2·5	·3	1·5	1·6	—	·8	·3	—	·2
Over-exertion	·9	·3	·7	·6	·5	·6	1·5	—	1·2
Sunstroke	2·5	·1	1·3	2·3	·1	1·2	3·5	·4	2·8
Accident or injury	3·5	1·2	2·4	5·8	·9	3·3	7·7	1·3	6·4
Pregnancy	—	·8	·4	—	·8	·4	—	1·7	·3
Parturition and the puerperal state	—	6·1	2·9	—	6·6	3·4	—	5·7	1·1
Lactation	—	1·0	·5	—	2·5	1·3	—	1·7	·3
Uterine and ovarian disorders	—	4·5	2·2	—	1·4	·7	—	·9	·2
Puberty	·2	·7	.5	·2	·8	·5	—	—	—
Change of Life	—	5·3	2·6	—	3·7	1.9	—	2·6	·5
Fevers	1·5	·9	1·2	·4	·4	·4	·2	—	·2
Privation and Starvation	·1	—	—	1·6	3·0	2·3	1·9	3·0	2·1
Old age	2·7	3·2	2·9	3·9	4·5	4·2	·3	2·2	·7
Other bodily diseases	8·9	9·7	9·3	11·7	11·2	11·4	12·4	15·3	13·0
Previous attacks	12·8	17·9	15·3	13·2	18·4	15·9	6·8	7·8	7·0
Hereditary influence ascertained	18·9	21·8	20·3	18·5	21·7	20·2	17·4	18·4	17·6
Congenital defect ascertained	6·8	4·9	5·9	5·2	3·0	4·0	·1	·4	·2
Other ascertained causes	8·5	2·0	5·4	1·9	1·1	1·5	1·0	·9	·9
Unknown	14·9	14·5	14·8	22·5	22·0	22·2	26·2	32·9	27·5

The following table shows the percentages of recoveries and deaths in the several classes of institutions and in private care, transfers and admissions into idiot-establishments having been excluded :—

	Proportion per cent. of Recoveries to Admissions.			Proportion per cent. of Deaths to the Average Numbers Resident.		
	M.	F.	T.	M.	F.	T.
County and Borough Asylums ...	36·18	44·53	40·41	11·75	7·64	9·50
Registered Hospitals.....	41·34	46·85	44·66	7·37	3·85	5·42
Metropolitan Licensed Houses.....	25·11	37·17	31·21	13·74	6·99	10·16
Provincial Licensed Houses.....	27·94	36·56	33·37	11·24	8·55	9·70
Private Single Patients	19·44	15·71	16·98	2·87	5·90	4·72

We have compiled the following table from the Lunacy Reports of the last five years as showing the percentages of admissions into the various classes of asylums, in which epilepsy and general paralysis were stated to be present, in private and pauper patients respectively.

Proportions per cent. of epileptics and general paralytics admitted into the various classes of asylums to the total number of patients admitted :—

Year.	Epileptics.						General Paralytics.					
	Private.			Pauper.			Private.			Pauper.		
	M.	F.	T.	M.	F.	T.	M	F.	T.	M.	F.	T.
1878.....	7·7	2·8	5·6	12·3	8·6	10·4	11·1	·8	6·5	14·4	3·7	9·0
1879.....	7·9	3·5	5·9	12·1	8·0	10·0	8·8	1·0	5·2	13·6	3·6	8·4
1880.....	6·0	3·4	4·7	11·1	8·0	9·5	7·9	2·2	5·1	12·5	3·5	7·7
1881.....	5·4	3·6	4·5	11·9	8·3	10·1	9·4	2·0	5·9	12·4	3·3	7·7
1882.....	5·2	2·8	4·0	12·5	8·1	10·2	10·9	1·4	6·3	14·4	3·6	8·9

The Commissioners devote considerable space in their report to a series of interesting and valuable observations upon the night watching of the epileptic and suicidal.

The views of the Board upon this subject are well known, and their recommendations have met with general approval and acquiescence. They still complain, however, of the inadequacy of the provisions for securing the safety of these classes of patients in some asylums, and, in urging their general adoption, are able to point to the satisfactory results which have followed their use wherever they have been carried out in an adequate manner.

After a reference to the "observatory dormitory," a plan of which, drawn to scale, was published in the appendix to their 28th report, they say, "However well arranged the dormitories may be, their purpose will be completely missed unless provision be made for the constant presence of a proper number of efficient night attendants, and for insuring, as far as possible, their vigilance.

"Night attendants ought to have no regular day duty.

"In many asylums the number of night attendants, especially for the proper care of the suicidal and epileptic class, is still insufficient. In our opinion, the number of such patients in charge of one attendant should not exceed 25, or at most 30.

"A few of the medical superintendents of asylums, distrusting the action of mechanical contrivances for checking the vigilance and regularity of the visits of night attendants, rely on a system of visitation by inspectors; but, in general, mechanical or electric apparatus of some kind is in use, and in this direction there has been much improvement of late. The old 'pegged' clock is now rarely met with, and has been superseded by 'Dent's tell-tale,' with paper dials marked at different stations.

"Latterly various systems of electric recording apparatus have been successfully introduced, and are likely to come into general use. Pratt's clock, manufactured by Bailey, of Salford, has been used in many asylums, and the system invented by Messrs. Spagnoletti and Partridge is used at Hanwell, at the Barming Heath Asylum, and at Banstead.

"At the Winson Green Asylum, Birmingham, Gent and Co.'s electric clock is employed, and at the North Riding Asylum one manufactured by Harrison, Cox, Walker, and Co., of Darlington, is stated to work very satisfactorily.

"Whatever may be the nature of the recording apparatus

employed, it should be supplemented by electric bells, insuring, in case of need, an instantaneous communication both with the day attendants, the head attendant, and the medical officers, the pushes acting on the bells placed in the day attendants' room being more than one, and fixed at short intervals on the special dormitory walls.

"In connection with this subject, we may notice that from a recent report on the Norwich Borough Asylum, we learn that in all the male dormitories there are bells fitted, by means of which the patients themselves can, on an emergency, summon a night attendant.

"The arrangement is said to be highly valued by the patients, and never to have been abused. Should it continue to work well, it may be worth adoption elsewhere. The frequency with which the night attendants are required to record their presence in the special wards varies considerably, being in some asylums every ten minutes, in others every half-hour, or even every hour. The latter is certainly too long an interval, and every half-hour would probably be sufficient, unless in special cases, and would not unduly interfere with the other duties of the attendants.

"It is of great importance that the recording stations should be placed in positions which insure the presence of the attendants in all parts of the dormitory successively, and especially at the single rooms, if these do not open directly into the main dormitory.

"Printed regulations, carefully drawn up, should be placed in the hands of the special night attendants, containing instructions for their guidance in case of fits and serious emergencies. Among other precautions, attendants should be taught not to allow epileptic patients to cover their heads with the bedclothes, or in any way to prevent the mouth from being always visible.

"All night attendants should wear noiseless slippers, and should be trained to move quietly about the wards."

These are very pertinent and sensible observations, and will be generally accepted as expressing the results of experience both of the Commissioners and a majority of asylum superintendents.

With reference to the steady increase in the asylum population, and the insufficiency of asylum accommodation which is constantly resulting from it, it is satisfactory to find that the Commissioners endorse the view which is now so widely entertained, that much of it is due to the inducement to

send patients unnecessarily to asylums which is held out by the 4s. Government grant, and that they have brought the matter prominently under the notice of the Local Government Board.

The cost of maintenance in County and Borough Asylums appears again to have undergone a diminution to the extent of $2\frac{7}{8}$d. in the former and $2\frac{3}{4}$d. in the latter. These figures vary somewhat from those given in the report, in which there would seem to have been a slight error of calculation.

The average weekly cost per head in 1882 was—

	s.	d.
In County Asylums	9	$1\frac{1}{4}$
In Borough Asylums.....	10	$5\frac{5}{8}$

distributed over the following details :—

	County Asylums.		Borough Asylums.	
	s.	d.	s.	d.
Provisions (including malt liquor in ordinary diet) ...	4	$4\frac{1}{8}$	4	7
Clothing	0	$8\frac{1}{4}$	0	9
Salaries and wages	2	2	2	$5\frac{1}{4}$
Necessaries, food, light, washing, &c.	0	10	1	$3\frac{1}{8}$
Surgery and dispensary	0	$0\frac{3}{4}$	0	$0\frac{3}{4}$
Wines, spirits, porter	0	0	0	$0\frac{5}{8}$
Charged to Maintenance Account				
Furniture and bedding	0	$4\frac{7}{8}$	0	5
Garden and farm	0	$6\frac{1}{2}$	0	6
Miscellaneous	0	$3\frac{3}{4}$	0	$7\frac{3}{4}$
	9	$4\frac{1}{4}$	10	$8\frac{1}{2}$
Less monies received for sales	0	3	0	$2\frac{7}{8}$
Total average weekly cost per head	9	$1\frac{1}{4}$	10	$5\frac{5}{8}$

Such, briefly, are the principal contents of this interesting report, which, in addition to a series of elaborate and valuable tables, contains the usual entries of visits to the various classes of asylums, from which it is obvious that, with very few exceptions, they are doing good work in the best way, in the care and treatment of the insane, and are fully maintaining a position which entitles them to favourable comparison with any similar classes of institutions throughout the world.

Twenty-fifth Annual Report of the General Board of Commissioners in Lunacy for Scotland, for 1883.

There were in Scotland, on 1st Jan., 1883, 10,510 insane persons, of whom 1,654 were private patients, 8,793 were pauper, and 63 criminal lunatics, chargeable to the State, in Perth Prison. The increase over the numbers of the previous year was only 149, 135 being paupers, and of those only 10 were added to the numbers in asylums in that time. So far as those establishments are concerned, therefore, the year 1882, has seen for the first time on record a decrease in their inhabitants in proportion to the population of Scotland as compared with the previous year. Happy country if it lasts! No new accommodation, at £175 a bed, for pauper lunatics needed. No pressing problems as to how to provide humanely for the owners of worn-out, non-productive brains, at the public expense. No new lunacy legislation to solve such questions and spend ratepayers' money—the harmless, weak-minded people suitable for such treatment, being taken out of asylums and scattered over the country in cottages of decent working people, and kept thus cheaply and comfortably under the inspection of the local doctors and the Deputy-Commissioners in Lunacy. Even for a year, how thankful would the authorities in England be to have such a state of matters. The factors that have produced such a result seem to have been full asylums, the Government grant given to all lunatics in or out of asylums alike, instead of to the former only, proper legal provisions for removing patients from asylums, and placing them elsewhere, asylum doctors who believe that chronic, incurable lunatics can be taken care of by other people than themselves, intelligent inspectors of poor anxious to carry out the provisions of the Lunacy Laws in their spirit, enthusiastic Deputy-Commissioners in Lunacy who believe that a "boarded out" dement is better off than an asylum patient, and infinitely better off than a British working man, and lastly, a small country where lunacy administration is compact, and has not yet degenerated into routine. Without a happy combination of all these circumstances, Scotland would have had to build asylum wards for its surplus 135 pauper lunatics to the tune of about £25,000.

But if Scotland has, as is now generally admitted, gone further in solving the great modern lunacy problem than most other countries, it seems natural that other countries

should learn something from her. France has lately sent a Committee from her Senate to study, among others, the Scotch system. We do not think that England has paid too much attention to what is going on beyond the border. And yet it seems as if she might learn something thus. With her asylums mostly full. With great additions being made to them almost everywhere as the only remedy for their congestion. With the curable cases in them in great danger of being swamped by the masses of incurables. With the medical element and idea in danger of extinction through the necessary labour of ordinary administration. With no increase of the scientific work done in asylums as the materials for it increase. With no proper provision for the limited discharge from asylums of the manifestly harmless cases that can no longer be benefited by hospital treatment, and no proper means of supervision of such cases in the workhouses. With no system of finding out guardians to take care of boarded-out cases, and no proper supervision of them after they are boarded-out. With the duties of central and local authorities overlapping and undefined to a large extent. With an undermanned and overworked Lunacy Commission. With Boards of Guardians and local ratepayers claiming to be admitted to the control of the insane, and a Liberal Government in office. With county government in that state of feebleness which is produced by the knowledge of imminent change. With the medical profession in a state of vague discontent at the present state of matters. Surely, with these and many more difficulties in this lunacy problem to surmount, it behoves the Government of this day to enquire into the best means of overcoming them, first by legislation and afterwards by administration. We wonder whether the full extent of these difficulties is realized by those in authority? With the experience of Scotland to guide them, they could, it is possible, overcome some of the difficulties of the situation. The fact is that the recent lunacy statutes of England were dictated by philanthropic motives chiefly, and founded on the false theory that English lunacy was a fixed quantity with defined limits, that could be easily dealt with and much diminished simply by building so many asylums. Science and experience have since those Acts were passed immensely expanded the boundaries of what requires to be regarded as technical insanity. The English lunacy statutes were made for the typical mania, melancholia, and dementia. Under cover of these, have crept in the mild congenital

imbecile, the epileptic in all his morbid mental phases, the senile and paralytic dotard, the persons whose wits have been soaked away by alcohol, the half-cured persons who can't fight their way in the world by reason of previous acute attacks of insanity, and the vast crowd has filled the lunatic hospitals with their annexes and additions, and are fast changing them from curative establishments into mental almshouses. We hope that in any new lunacy bill brought in by the Government, in addition to provisions for dealing with all those clamant evils, there will be one for the establishment in the large towns, either as adjuncts to the general hospitals, to the county asylums, or as special institutions, small, strictly curative asylums for probationary treatment of some of the acute cases of mental disease of short duration, through which the general profession of medicine will regain its rapidly failing connection with the speciality of alienism.

The reports on the asylums by the Visiting Commissioners are mostly laudatory. In most of them the Scotch Asylum characteristics of no airing courts, much farm-work and out-door exercise, some unlocked wards, frequent discharges of patients "on probation," and many sent to be boarded-out, prevail. The amount of excitement among the patients seems to be small. The recovery rate is higher, the death rate less than in England, and the accumulation of uncured cases not so great. There is mention made of systematic attempts to train attendants in hospital wards, where they may imbibe *ab initio*, the sick-nurse idea and practice. There is mention made of purchases of hundreds of acres of land in addition to ordinary asylum farms, and of the erection of large farm steadings with accommodation for many patients, who will thus literally "live on the farm." Everywhere there seems to be activity, zeal, a desire to try new ideas, a backing-up of the medical officers by the Commissioners, and an honest attempt of the former to work out the ideas of the latter—all which is pleasant to observe. The efforts of Deputy-Commissioners Fraser and Lawson to extend and improve the boarding-out system are mentioned with approval in the report. Dr. Lawson, as usual, is striking in what he says, and is almost paradoxical, for he tries to show that "like cures like" in insanity, and that the nursing of an excited, melancholic mother acted as a prophylactic against an attack of insanity in a daughter lately out of an asylum. He says:—"The presence of the mother supplied the daughter with an occupation, in

the performance of which a highly commendable sense of duty was being acted on. The removal of the mother to an asylum would have caused worry, and left her a prey to the distressing self-accusation of having abandoned a duty which she had felt specially called on to perform. Which of the two causes does the study of the etiology of insanity lead us to think would be the most powerful—the engrossing, mental occupation in an arduous task faithfully performed, or the distraction of vague dread and self-accusation ? " We confess we think Dr. Lawson's philosophy of the matter is correct in certain cases. We have seen a mother become insane from the self-accusation of having sent her daughter to an asylum, but then we have seen many daughters becoming insane, or nearly so, from nursing insane mothers. The average cost of the boarded-out cases in Scotland is about seven shillings per week. Dr. Lawson thinks the actual cost to the guardians of the patients is 3s. 7d. per week. But the sums paid by the parishes vary enormously according to the district, and the nature of the case. This variety of payment the Commissioners highly approve as being just and expedient. They enter fully into their reasons for this. They notice with approval that a yearly increasing number of quiet and industrious patients are drafted from asylums into private dwellings.

In addition to the ordinary topics of a lunacy report, there are two special subjects gone into in an exhaustive way. One is an elaborate enquiry, extending to 30 pages, founded on Scotch statistics, into the question of *The Relation of Pauper Lunacy to Density of Population*, and the other is a memorandum of 40 pages by Dr. Mitchell, on the history of the Royal Edinburgh Asylum at Morningside, and its complicated relationships and responsibilities to its original contributories, to the public of Scotland, to certain parishes with which it has entered into contract, and to the District Lunacy Board of the City of Edinburgh. The first will well repay perusal by all physicians. The following are the conclusions arrived at in the report :—

A larger number of persons annually become pauper lunatics in urban than in rural localities.

Pauper lunatics in urban localities remain pauper lunatics for shorter periods than in rural localities.

There are on the Register at any given date a larger number of pauper lunatics in rural than in urban localities.

The larger number on the Register in rural localities is accounted

for by the larger number of pauper lunatics in private dwellings, the number of pauper lunatics in asylums being nearly the same for the two classes of locality.

Although the number of pauper lunatics in asylums is nearly the same for each class of locality, the number annually admitted is much greater in urban localities.

The reason why the larger number of admissions in urban localities does not lead to a larger number resident in asylums, is the shorter average period of their residence there.

The excess in the number of admissions to asylums in urban localities over those in rural localities consists mainly of persons who would not be sent to asylums in rural localities. Such persons are divisible into two classes—

1. Persons labouring under curable forms of insanity not of long duration; and,

2. Persons placed in asylums during short periods on account of the exigencies of urban life making removal from home necessary, so long as their insanity manifests itself in an acute form.

The differences of the death-rates in asylums correspond for the different classes of locality with the differences in the general death-rates in the different classes of locality.

The number of pauper lunatics resident in asylums has been increasing at a much more rapid rate in rural localities than in urban localities.

The number of pauper lunatics annually sent to asylums has also been increasing at a more rapid rate in rural than in urban localities; but the preponderance of the rate of increase in the annual number in rural localities has not been nearly so great as the preponderance of the rate of increase in the number of resident.

A larger number of persons annually become recipients of parochial relief in urban than in rural localities.

Persons remain recipients of parochial relief for shorter periods in urban than in rural localities.

There are on the Register at any given date a larger number of paupers in rural than in urban localities.

This larger number of paupers on the Register in rural localities, in spite of the smaller annual number who obtain relief, is due to the shorter period during which they obtain relief.

All these particulars in regard to paupers are in accordance with what occurs in regard to pauper lunatics.

The number of pauper lunatics in both classes of locality bears nearly the same proportion to the number of paupers, notwithstanding that the amounts of pauperism and pauper lunacy in different classes of locality present material differences.

There is reason to believe that the statistics of pauper lunacy are the results of causes similar to those which affect the statistics of pauperism.

The statistics of pauper lunacy cannot be taken as an indication of the amount of insanity in the country.

Dr. Mitchell's memorandum on the Royal Edinburgh Asylum possesses general interest, as showing the history of a philanthropic movement affecting the insane in a then poor but self-reliant community, with all its mistakes and failures as well as its successes. To carry out their great end of benefiting the insane, the managers of that institution have from first to last entered into many engagements with many bodies, whose interests have now become conflicting; and the object of Dr. Mitchell's elaborate researches into the history of the institution is to extend its benefits, by "unravelling the complications" that have arisen in the 77 years of its existence. One great effect of the memorandum is to show that the Royal Edinburgh Asylum, and all such chartered asylums, got up originally as philanthropic institutions, should limit the number of their pauper patients to that point that will enable them to take in all the private patients of their districts, poor and rich, but especially "to be helpful" to private lunatics who are in narrow circumstances. Another effect will be to show that these asylums should charge rates of board for pauper patients sufficient to cover outlay, and not let the ratepayers of the district benefit by the profits from private patients. In fact, the Royal Asylums of Scotland should look on their provision for private patients as their prime duty, and look on their provision for pauper patients as secondary, because these have, by the Lunacy Act of 1857, been provided for in another way. No duty could be more humane or more needful than providing good and suitable asylum treatment for the middle and poorer classes without making technical paupers of them. An institution which does this helps to heighten the self-respect and self-reliance of one of the more important classes of a nation.

The report concludes with the following statement :—

After making allowance for the increased population of the country, the number of private lunatics in asylums has increased 9 per cent. since 1858, and the number of pauper lunatics in asylums and similar establishments has increased 89 per cent. And it is worthy of note that the proportion of pauper lunatics in asylums to the population had decreased last year to 185 per 100,000 from 188, which was the proportion in the previous year. This is the first time since the establishment of the Board that we have been able to report a decrease.

Thirty-second Report of Inspectors of Irish Asylums, 1883.

The Thirty-second Report of the Inspectors of Irish Asylums, shows a great advance in the improved series of statistics, which have appeared for the first time, and which are, in many cases, similar to those recommended by the Medico-Psychological Association, and in general use in public asylums. From year to year it has been pointed out how much it would tend to elucidate the present condition of the insane, and to throw additional light on the study of psychology if a uniform system of statistics were adopted in the three divisions of the United Kingdom, and everyone interested in the treatment of insanity will receive with pleasure the attempt made by the Irish Inspectors to adopt the tables in general use, so far as it was possible whilst fulfilling the requirements of a blue-book.

Comparing the distribution of the insane in Ireland in 1882 and 1883, it will be found that the numbers stand as follows:—

	1882.	1883.
In District Asylums	8,978	 9,271
In Central Criminal Asylums	173	 173
In Stewart Institution	18	 16
In Private Asylums.....	635	 650
In Workhouses	3,640	 3,711
	13,444	13,821

giving an increase of 377 on the year 1882. The Inspectors are not of opinion that this increase shows any advance in the number in the country, as the admissions were generally of a chronic type. The decrease of the population by emigration, leaving the infirm, physically and mentally, to remain, causes the ratio of the insane to the sane to be higher in the present generation than it otherwise would, but the presumption is that it will decline in the next to the legitimate proportion.

The admissions into district asylums during the year amounted to 2,645, being an increase of 113 more than in the preceding. Of these 508, or 19 per cent., were relapses.

The Inspectors, as they have done from year to year, draw attention to the forms of orders for admission to the public asylums of Ireland. "We have," they say, "frequently adverted to the prevalent mode of admitting lunatics into district asylums, and which, quite different from what obtains in England and Scotland, though consonant with law, is by

no means satisfactory in its practical results. Boards of Governors in this country exercise little or no control in regard to the selection of cases."

No control, however, exists, so far as we are aware, in the committees of public asylums either in Scotland or England to select the cases for admission, and we would refer the Irish Inspectors to the order for the reception of a pauper lunatic in use in all parts of England under Act 16 & 17 Vict., c. 97.

They add that in Scotland last year eight lunatics only were sent to asylums as dangerous, against 190 times as many in Ireland. But no comparison can be made between the orders for the admission of dangerous lunatics in the two countries, as in Scotland no difficulty exists in obtaining immediate admission for an insane pauper. Whatever irregularities may exist in Ireland from the indiscriminate use of the Dangerous Lunatic Act, nothing could be more detrimental to the treatment of insanity than to close the public asylums to the admission of the insane poor till it was the will of Committees of Visitors to admit. Better that a few mistakes and irregularities should happen than that a single case requiring speedy treatment should be sent away. The utility of asylums has been clearly proved largely to depend on the early admission of those requiring treatment, and the Irish Inspectors fail to point out any possible way of obtaining this if the power of granting admission orders was relegated to Boards of Governors alone.

The Irish Inspectors seem to take a gloomy view of the utility of the advances in psychological science in the treatment of insanity. "As to the direct or specific operations in asylums in effecting recoveries, it constitutes, in our opinion, to a certain extent, a moot question. On the aggregate, judicious treatment is essential, and should be rigidly carried out, hoping against hope; still we do not find that success has been very largely advanced by modern science. At all events cures seem to have borne, in general or delusional lunacy, a rather close approximation to each other at long intervals, and we are induced so to think on looking over records extending backwards for many decennial periods."

Their conclusion cannot be considered cheering to the aspirant students of psychological medicine in Ireland, nor such as would be likely to urge the executive to further lavish expenditure to support the present system of the treatment of insanity. Science without works is dead.

The percentage of recoveries on the average number under

treatment last year was almost identical with that in the preceding quinquennial, or eleven and a quarter per cent.

The mortality in public asylums in Ireland has always been below the average. Last year it was 6 per cent. on the number under treatment as against $6\frac{3}{4}$ in 1881. The extraordinary fact is reported that not one death resulted from accident, violence, or suicide.

With respect to interior organisation, the Inspectors state that the asylums under their care are, on the whole, favourably circumstanced as regards cleanliness, order, and ventilation, comfortably furnished, the dietary ample, and the clothing suitably chosen. Whilst it is allowed there is not the same air of comfort observable as in English institutions, taking into consideration the antecedent habits of the humbler classes in both countries, the advantages are much greater in the Irish asylums. Amusements are fairly afforded; but it is stated that the means of occupation, particularly employment in the open air, should be more a matter of requirement than it is at present. It is evident that though not sanguine as to the progress and results of the treatment of insanity in Irish asylums, the Inspectors are nevertheless determined to bestow every praise on the management of these institutions. In like manner, from a comparison with the return of the English and Scotch Commissioners, as to the discharges and resignations of attendants, it is concluded that the changes in Ireland are not nearly so many, being only 128 in an average subordinate staff of 960. The question would, however, arise whether the discipline carried out in these institutions in the three divisions of the kingdom is equally strict.

As regards education, about one-fourth of the pauper insane are said to be illiterate, and as regards condition as to marriage, the single are three times more numerous than the married, the reverse, it is stated, to what is observable in England.

As the result of their calculations, the insane under treatment with suicidal tendencies, are about eight per cent., the curable are said to number about thirty, the idiotic three, and the epileptic five per cent. According to the Report of the English Commissioners for 1882, the proportion per cent. of the number with suicidal propensity to the total number admitted, amounted to 28·6, epileptics to 9·2; and the number suffering from congenital insanity, including idiocy, to 4·8.

The expenditure for the year 1881 (the last year audited), for the maintenance of district asylums, amounted to

£206,324, being the whole sum, as the Inspectors point out, chargeable for the support of these institutions, except what is obtained through the Commissioners of Control for the Erection and Establishment of Lunatic Asylums in Ireland.

The total number who were classed as lunatics, and were under the supervision of the Inspectors in workhouses in Ireland, amounted on Dec. 31, 1882, to 3,711. The condition of the insane in these institutions was as follows: as a rule, quiet and amenable, but incapable of working, the great majority being composed of individuals advanced in years, doting, epileptic, and imbecile, broken down by dissipation and inebriety, and cases of chronic dementia sent from district asylums.

The question of the proper treatment of the insane in workhouses, as the present accommodation for those afflicted is confessedly imperfect, is here taken into consideration. Two points are brought forward for solution; first, what is best for the lunatics themselves, and secondly, how can this be obtained consistently with efficient economy.

The Inspectors proceed to answer these questions, by advising that to the large workhouses, "which are in some institutions not only thronged with ordinary paupers but much incommoded by lunatics," the addition be made of suitable detached buildings of simple character. The staff to be attached to these buildings in addition to the present workhouse officials, to consist of a competent paid attendant to every twenty-five patients, assisted by a couple of paupers. The dietary to be more generous than that supplied to common paupers, while, for exercise, a small portion of land should be available.

It would appear, however, to be a doubtful sanitary arrangement to add to these already admittedly overcrowded workhouses, containing, as a general rule, over two thousand inmates, and the question would also suggest itself how these competent attendants are to be supervised. It cannot surely be suggested that this can be done by the workhouse officials, who must already have a larger share of supervision than they can possibly do. If no supervision is required, we can only say that the last state of these lunatics will be worse than their first, as they will not only continue in their present neglected state, but have to suffer in addition the cruelty of the *competent* attendants.

On the other hand the proposition to add to the district asylum, so as to afford accommodation for the insane at present in workhouses, is considered by the Inspectors to be

injudicious for the following reasons:—1st, the amount of land attached to asylums is too small; 2nd, the outlay for a building consistent in character with asylum architecture would be costly, whilst a third-rate class of edifice would be inharmonious; 3rd, the mixture of idiots, epileptics, and senile dements with the curable occupants of an hospital, would be deleterious to the latter; 4th, the rate in aid might be abused; 5th, it might appear unfair if all were not treated alike.

In answer to all these objections we can only suggest to the Inspectors to visit the annexes lately erected in addition to the Lancashire County Asylums and see how these difficulties have been overcome, whilst the inmates are retained under the supervision of the staff of these institutions.

A prospective view is next taken of the requirements for the support of the insane in Ireland. It is supposed that a normal accommodation of 9,600 beds in district asylums will be ample for the present and coming generation (the number at present in these institutions amounting to 9,271); for this number the rate in aid is calculated at £96,000, the support of Dundrum will amount to £7,400, while office and supervision charges might raise the total Government cost to £108,000 as a maximum.

Next as to local taxation, the amount computed for the support of the inmates of district asylums would be £134,400, and for 4,000 mentally affected in poor-houses £56,000. This total sum of £190,400 is stated to be about twopence-halfpenny in the pound on the rateable property of Ireland.

With reference to "lunatics at large" the Inspectors state that no less than 3,446 are supposed to be without supervision. To these returns, which are allowed to be indefinite, the Inspectors state there are no parallel enquiries either in England or Scotland. We must, however, refer the Inspectors to the English Commissioners' Report, which gives a return of 6,255 out-door paupers, and to the Scotch Commissioners' Blue-Book, which gives a return of 1,693 patients in private dwellings, so that these would include the larger number of the lunatics not in asylums or workhouses in these countries.

From a return made to them by the constabulary the Inspectors find that the pauper lunatics in Connaught did not constitute a fourth in regard to population of those in the other provinces. "Hence the evident deduction that lunacy

is far less prevalent in the rural than the urban districts of this county."

An interesting comparison of the insane in the three countries is next given. According to this England has one insane person in 414 of its inhabitants; Scotland one in 362, and Ireland one in 369. From the circumstance that in Scotland the rate in aid is given to lunatics not resident in asylums, it is but fair to suppose that all who are really insane receive the benefit of the Government grant in that country. Hence from the Celtic descent of the two countries, and their similarity in geographic formation, it is inferred that the numbers of the *bonâ fide* insane must be closely approximate. It does not seem, however, quite evident how this follows, especially as the Inspectors admit that by the last census nearly six thousand insane are reported to be at large in Ireland, so that instead of one to 362 as in Scotland there would be one in 260 in that country.

A retrospective history is next given of the treatment of the insane in Ireland from the middle of the last century. The first institution for the treatment of mental disease was founded in 1745 by the celebrated Dean Swift for the reception of 100 insane persons, if among idiots and maniacs so many could be found, otherwise ordinary patients should *pro tempore* be admitted. This institution is said to have been constructed, as it now stands, with a due appreciation of the requirements of the insane, and to have had distinct rules laid down that a system of kindness was to be carried out, and every liberty extended to the insane consistent with their safety.

For seventy years little further interest was taken till 1815 when the Richmond Asylum for 240 was erected by Government, for the general benefit of the country. Since 1843, when the present Lunacy Board was formed, a wondrous change has taken place. When the population of Ireland was 8,175,000, fully three millions over the existing number, the accommodation for the insane poor amounted to 2,100 beds as against 9,000 at present for 5,100,000.

The report of the Resident Physician of Dundrum is given as usual in detail. He reports that there has been in the last couple of years a grave increase in the number of cases of chest affection, principally phthisis, resulting in an increased death rate. He advocates a system of rewards to induce the patients to employ themselves. In other institutions, and especially at Broadmoor, he states that the system of

rewards is largely brought into operation with good results. The Inspectors, however, object to this, stating that they are adverse to a greater liberality to criminal lunatics than is shown to the unoffending inmates of district asylums.

Under the provisions of 5th and 6th Vict., cap. 123 there are sixteen houses in Ireland licensed for the reception of private patients. Resident in them at the close of last year were 271 inmates.

Independent of these there are institutions of a mixed character, partly on a charitable foundation, viz., Swifts, The Retreat, belonging to the Society of Friends, Palmerston House, founded as the Stewart Institute, containing imbecile children in one portion of the building and ordinary lunatics in the other, and St. Vincent's, the property of a religious community for the reception of insane ladies. Of the 808 private patients under treatment, 47 were discharged cured, 32 improved. These returns are stated to contrast favourably with public asylums, whilst the mortality is 3¼ under the average. During the year no deed of violence, no suicide, no permanent escape, or untoward occurrence was reported as happening in any of these private institutions.

The Inspectors close their report by pointing to the Appendices as an evidence of the continuous and successful administration of the Lunacy Department during the year under review. The profit from the farms was large; the contract prices were fair, evincing the judgment and discretion of Boards of Governors; the dietary was liberal; and the quantities of food consumed properly calculated; whilst ample proof is given of the industrial aptitude of the patients by the amount of work done by them.

Enquiries into Human Faculty and its Development. By Francis Galton, F.R.S. Macmillan and Co. 1883.

We may say at once that this is a remarkable book, and though almost all the essays it contains have already appeared under other forms, we are glad to have the whole subject to which they refer comprised in a single volume. The questions discussed are calculated to excite in the strongest manner, the interest of Medical Psychologists.

The author informs the reader that his general object has been "to take note of the varied hereditary faculties of different men and of the great differences in different families and races, to learn how far history may have shown

the practicability of supplanting inefficient human stock by better strains, and to consider whether it might not be our duty to do so by such efforts as may be reasonable, thus exerting ourselves to further the ends of evolution more rapidly and with less distress than if events were left to their own course." However, so complex is the question that all Mr. Galton hopes at present to effect is to fix the position of several cardinal points. What these are we shall shortly see. Meanwhile let us refer to some of the investigations in which Mr. Galton has been so actively engaged. Take first the remarkable differences in human features, the sum of innumerable minute details. This is a fascinating subject alike for artist and psychologist, between whom there must ever be a common bond of union; for the artist has much to learn from the psychology of expression, and the psychologist is greatly assisted in his researches by the art representing the expression of psychical states. How laborious, and in a corresponding degree, how valuable is the work of an artist, is well illustrated by the fact that Mr. Galton in endeavouring to estimate the number of strokes made by an able artist in painting a portrait—every stroke being thoughtfully given—found that "during fifteen sittings of three working hours each, that is to say during forty-five hours or two thousand four hundred minutes, he worked at the average rate of ten strokes of the brush per minute. There were therefore twenty-four thousand separate traits in the completed portrait, and in his opinion some, I do not say equal, but comparably large number of units of resemblance with the original" (p. 5). No doubt, as Mr. Galton observes, English physiognomy has differed greatly at different periods, after making allowance for fashion in portrait painting. He has traced in his examination of large collections of national portraits, the signs of one predominant facial type succeeding to another. Thus the men painted by Holbein are generally characterised by high cheek bones, long upper lips, thin eyebrows, and lank, dark hair. It would be impossible, Mr. Galton thinks, for the majority of modern Englishmen to resemble the majority of Holbein's portraits by dress and arrangement of hair. They are now a fair and reddish race.

As is well known Mr. Galton has endeavoured to obtain really representative faces by his ingenious method of composite portraiture, the effect of which is "to bring into evidence all traits in which there is agreement, and to leave but a ghost of a trace of individual peculiarities," and the re-

markable thing is that this composite picture made from so many components is not a blurr. Of these pictures there are given in this volume many interesting specimens, containing, for example, numerous cases of tubercular disease in one portrait, and of a hundred non-consumptive cases in another; also of criminal types, and members of the same family. We may mention that Mr. Galton has made a number of admirable photographs of patients at Bethlem Hospital, but that he has not succeeded in obtaining composite portraitures, which would properly depict any typical form of insanity. Of the portraits of convicts Mr. Galton has obtained fairly distinct types. Some criminal composites possess a negative rather than a positive interest.

> They produce faces of a mean description with no villainy written on them. The individual faces are villainous enough, but they are villainous in different ways, and when they are combined the individual peculiarities disappear and the common humanity of a low type is all that is left (p. 15).

Of the positively criminal type the author observes that he had not adequately appreciated the utter degradation of their physiognomy; at last the sense of it took firm hold of him, and he says he "cannot now handle the portraits without overcoming by an effort the aversion they suggest." Of distinctively criminal facial convolutions, so to speak, Mr. Galton speaks as strongly as Benedikt does of those of the cerebrum in the same class. Concurrently with such physical marks Galton portrays the criminal in colours desperately black indeed, but we fear not overdrawn. His conscience is almost absent; his instincts are vicious, his power of self-control very weak, due partly to ungovernable temper and passion, and partly to imbecility; hypocrisy is common, truthfulness and remorse are equally rare.

The criminal class is, of course, perpetuated by heredity, and it may be properly urged in favour of long terms of imprisonment that their progeny is lessened. Unfortunately this class is continually increased by the addition of persons

> who, without having strongly marked criminal natures do nevertheless belong to a type of humanity that is exceedingly ill-suited to play a respectable part in our modern civilization. . . They are apt to go to the bad; their daughters consort with criminals and become the parents of criminals.

The Jukes family, in America, is a terrible example.

Mr. Galton's remarks on madness are few, but are to the

point as regards epilepsy and criminality. They refer to facts familiar to our readers and need not detain us.

We pass on to the chapter on Mental Imagery. Early in his inquiry Mr. Galton found, to his astonishment, that the great majority of men of science to whom he applied, were sublimely ignorant of any such thing, and regarded inquiries into it as fantastic.

> They had no more notion of its true nature than a colour-blind man, who has not discerned his defect has of the nature of colour. They had a mental deficiency of which they were unaware, and naturally enough supposed that those who affirmed they themselves possessed it, were romancing (p. 85).

In general society, however, Mr. Galton found a very different opinion prevailing. What *savants* and members of the French Institute could not see, ordinary men and women, boys and girls, saw with perfect distinctness. Mr. Galton is convinced that it is a much easier matter than he had hoped to obtain satisfactory answers to psychological questions. To artists the visualising faculty must be of inestimable value. Mr. Galton has, however, known some destitute of the gift who have managed to become Royal Academicians. This, however, may or may not constitute an exception to the rule, in view of the common observation that the worst as well as the best pictures exhibited at the Academy are by members of this guild. Examples are given by the author of the association of colours with different subjects, as the months, days, &c. An artist informs us that he has done so ever since he can remember, and his associations are as follows:—*Jan.* Dull orange. *Feb.* Light brown. *March.* Neutral black. *April.* Grey. *May.* Neutral tint. *June.* Yellow neutral. *July.* More orange than last. *August.* Golden grey. *Sept.* Yellowish. *Oct.* Rather grey. *Nov.* Almost black. *Dec.* Rather grey. The days of the week are coloured thus. *Sunday.* Golden reddish yellow. *Mon.* Neutral. *Tues.* Lighter red than Thursday. *Wed.* Blue. *Thurs.* Reddish. *Friday.* Brownish black. *Sat.* Yellow. Many of the letters of the alphabet have also corresponding colours.

It need hardly be said that Mr. Galton's researches on mental imagery bear closely upon the relations between ideation and sensation, the question of the seat of recalled sensory images, and the hallucinations of the insane. After all that has been written on the last subject much remains to be accurately observed in regard to their character, in-

tensity, unilateralness, the degree in which the terminal sense organ can be shown to be involved, and the relation of the hallucination of one sense to that of another. Some patients have auditory hallucinations as distinct as sounds heard by the outward ear ; others, and the majority, hear voices in much more subjective fashion. The difference would appear to be due to the degree of extension of the current from the sensory centre in the cortex to the peripheral termination, rather than to the degree of intensity of the belief in the hallucination, according to which a patient might be supposed to refer his subjective sensations to a completely external stimulus. We have observed as intense and dangerous beliefs associated with hallucinations of slight as of vivid objectivity. Whatever may be the true explanation, there can be no doubt that hallucinations may in some instances have their sole seat in the sensory centres, and in others extend to the sense organs themselves. Again, some patients as they read a book hear every word distinctly uttered ; just as some persons distinctly perceive the words which they hear. Further, some lunatics labouring under hallucinations of hearing, hear these subjective sounds only on one side. And are there not cases in which colours accompany auditory hallucinations? At any rate, with some patients, there may with a clash of bells be a flash of light. We refer to these interesting points in the briefest manner only to show how many questions of importance remain unanswered or suggest further inquiry, and it is to be hoped that those who are familiar with the insane will work to the same good purpose that Mr. Galton has done in regard to the sane.

Of "Number Forms," Mr. Galton gives some remarkable illustrations. Some persons in health visualise numerals so distinctly that they amount to (sane) hallucinations, and can define the direction in which they appear, and their distance. Thus, if looking at an object on the horizon at the moment a figure presents itself to their mental eye, the latter would appear to the left or right of the object, and above or below the horizon. It is also noteworthy that many observe the image of the same figure in invariably the same direction and at the same distance. And just as with the insane, others are not conscious of the same degree of objectivity ; the image is more dreamlike and subjective.

These forms of figures in the sane are found to have existed as long as the latter can remember, and are quite independent of the will ; they sometimes appear along a

line or are arranged in rows or in a singular framework; they are sometimes curved to the left, oftener to the right, and run more frequently upward than downward; they often have fantastic twists and curves.

The months of the year often appear as ovals, and appear in the opposite direction to those of the figures on a clock, as often as in the same direction. Mr. Galton truly observes of forms of numerals in pupils in schools that they are "the most remarkable existing instances of what is called topical memory, the essence of which appears to lie in the establishment of a more exact system of division of labour in the different parts of the brain than is usually carried on." Hence it is that topical aids to memory are of the greatest service to many persons. No doubt, as the author observes, "those who feel the advantage of these aids most strongly are the most likely to cultivate the use of numerical forms." But is it quite fair in competitive examinations that such should be allowed to gain prizes when they have in fact carried a book of answers to questions in their visualizing centres instead of in their pockets? Indeed we have known a prize-man confess that he owed his success solely to reading his notes of lectures visually when answering his examination papers!

But our space obliges us to leave this fascinating subject and proceed to say a few words on "Visionaries." Mr. Galton was surprised to find how many apparently healthy persons were subject to what they themselves described as visions, of which he regards the number-forms already described as the lowest order of examples. Mr. Galton has received many touching accounts of childish experiences of visions. Such persons supposed that all the world saw visions like themselves. They, however, soon excited astonishment in others, and surprise in themselves, by incidentally mentioning their experiences. Then followed "ridicule and a sharp scolding for their silliness, so that the poor little things shrank back into themselves and never ventured again to allude to their inner world" (page 156). One of these victims of sensory-hyperæsthesia after attending a lecture by Mr. Galton wrote to him thus: "At your lecture the other night, though I am now over twenty-nine, the memory of my childish misery, the dread of being peculiar came over me so strongly that I felt I must thank you for proving that in this particular at any rate my case is most common." Another form of vision is the instant flash of colour which, with some individuals accom-

panies sound, and which is of the highest interest. The vowel sounds chiefly call forth colours. The subjects of these coloured visions minutely describe their precise tint and hue. Rarely do two persons agree as to the associated colour. This interesting tendency is very hereditary. A third form of vision is that of visualised pictures with words. Here is Mrs. Haweis's experience:

> When I think of the word Beast it has a face something like a gurgoyle. The word Green has also a gurgoyle face, with the addition of big teeth. The word Blue blinks and looks silly and turns to the right. The word Attention has the eyes greatly turned to the left. . . Of course these faces are endless as words are, and it makes my head ache to retain them long enough to draw.

Mr. Galton's own experience in observing his field of view in perfect darkness is interesting. After straining to examine it, he observed a

> kaleidoscopic change of patterns and forms continually going on, but too fugitive and elaborate for me to draw with any approach to truth. I am astonished at their variety, and cannot guess in the remotest degree the cause of them. They disappear out of sight and memory the instant I begin to think about anything, and it is curious to me that they should often be so certainly present and yet be so habitually overlooked. If they were more vivid, the case would be very different, and it is most easily conceivable that some very slight physiological change, short of a really morbid character, would enhance their vividness (p. 159).

The Rev. George Henslow's visions are described as being much more vivid.

> When he shuts his eyes and waits he is sure in a short time to see before him the clear image of some object or other, but usually not quite natural in its shape. It then begins to change from one form to another, in his case also, for as long a time as he cares to watch it. Mr. Henslow has zealously made repeated experiments on himself, and has drawn what he sees. He has also tried how far he is able to mould the visions according to his will. In one case after much effort he contrived to bring the imagery back to its starting point, and thereby form what he terms a visual cycle (l.c.).

Of these a very curious illustration is given in one of Mr. Galton's plates.

We have no doubt Mr. Galton is right in holding that hallucinations, especially in the form of visions, are much more frequent among the sane than is generally supposed. There are, no doubt, two ways of regarding this fact: the one that there are a good many people at large in the world who are, scientifically speaking, insane; the other that

there are many whose senses are excited from within, instead of, or as well as, from without, whom it would be preposterous to regard as insane.

The important practical bearing of the latter fact is that alienists ought to be more careful than they often are in assigning, as a proof of insanity, the presence of hallucinations divorced from their relation to conduct and belief.

Mr. Galton relates the following :—

> A near relative of my own, saw phantasmagoria very frequently. She was eminently sane, and of such good constitution that her faculties were hardly impaired until near her death, at ninety. She frequently described them to me. It gave her amusement during an idle hour to watch theses faces, for their expression was always pleasing, though never strikingly beautiful. No two faces were ever alike, and no face ever resembled that of any acquaintance.

What is very important, she never mistook them for reality, although they sometimes came almost suffocatingly close to her. Mr. Galton mentions also a distinguished authoress who "once saw the principal character of one of her novels glide through the door straight up to her. It was about the size of a large doll, and it disappeared as suddenly as it came." The daughter of an eminent musician is mentioned who often seems to hear her father playing when he is not. If it be admitted that this is abnormal, it is certainly not an insanity. The tendency to see visions is hereditary, as among the second-sight seers of Scotland, whom no one regards as more lunatic than their fellow-countrymen.

By means of ingenious psychometric experiments Mr. Galton has shown how mental operations which have passed out of the ordinary range of consciousness, can not only be recalled, but recorded in a statistical form, and he has shown measurably the rate at which associations spring up, the date of their formation, their tendency to recur, and their relative precedence. These experiments show—what, indeed for some years, has been more and more perceived by psychologists, the enormous number of operations of which the mind is unconscious, thus indicating a depth of mental action entirely "below the level of consciousness, which may account for such mental phenomena as cannot otherwise be explained. We gain an insight by these experiments into the marvellous number and nimbleness of our mental association, and we learn also that they are very far indeed

from being infinite in their variety." Our space does not allow a detailed description of these experiments; we can only briefly refer to them. In his first experiments Mr. Galton walked slowly along Pall Mall (450 yards) and scrutinised every object (about 300), and allowed his attention to rest on them until one or two thoughts had arisen through direct association with the object, never allowing his mind to ramble. He found that although it was impossible to recall clearly the numerous ideas which had passed through his mind, samples of his whole life came before him, including many byegone incidents never suspected to have formed part of his mental furniture. He was perfectly amazed at the unexpected extent of every day mentality. In a few days he repeated his walk, and was struck as before by the number of events to which his ideas referred, and about which he had never consciously occupied himself for years. He, however, found that there was a great deal of repetition of thought, and that the same actors appeared again and again upon the stage. In order to secure these fleeting thoughts, and submit them to statistical analysis, he selected a list of suitable words and wrote them on small sheets of paper—

> Taking care to dismiss them from my thoughts when not engaged upon them, and allowing some days to elapse before I began to use them, I laid one of these sheets with all due precautions under a book, but not wholly covered by it, so that when I leaned forward I could see one of the words, being previously quite ignorant of what the word would be. Also I held a small chronograph, which I started by pressing a spring the moment the word caught my eye, and which stopped of itself the instant I released the spring; and this I did so soon as about a couple of ideas in direct association with the word had arisen in my mind. I found that I could not manage to recollect more than two ideas with the needed precision, at least not in a general way; but sometimes several ideas occurred so nearly together that I was able to record three or even four of them, while sometimes I only managed one. The second ideas were never derived from the first, but always direct from the word itself, for I kept my attention firmly fixed on the word, and the associated ideas were seen only by a half glance. When the two ideas had occurred I stopped the chronograph and wrote them down, and the time they occupied. It was a most repugnant and laborious work, and it was only by strong self-control that I went through my schedule according to programme. The list of words I finally secured was 75 in number, though I began with more.

Mr. Galton found it took 660 seconds to form 505 ideas, being at the rate of 50 in a minute. His list of 75 words gone

over four times gave rise to 505 ideas, and 13 cases of puzzle in which nothing sufficiently definite to note occurred within the brief maximum period of about four seconds, that he allowed himself in any such trial. Of these 505 only 289 were different. Out of every 100 words, 23 gave rise to exactly the same association in every one of the four trials; 21 to the same association in three out of the four, and so on. For the tables prepared by Mr. Galton we must refer the reader to the work itself, and we hope that others will be stimulated to pursue similar experiments on themselves, and record the results in this Journal.

Mr. Galton's observations on what he calls the ante-chamber of consciousness are much to the point. When trying to think anything out, the ideas that lie at any moment within the full consciousness seem to him to attract of their own accord the most appropriate out of a number of other ideas lying close at hand, but imperfectly within the range of consciousness.

> A sort of presence-chamber where full consciousness holds court, and where two or three ideas are at the same time in audience, and an ante-chamber full of more or less allied ideas, which is situated just beyond the full ken of consciousness. Out of this ante-chamber the ideas most nearly allied to those in the presence-chamber appear to be summoned in a mechanically logical way and to have their turn of audience.

Mr. Galton describes the progress of thought here as depending first, on a large attendance in the ante-chamber; second, on the presence of ideas only germane to the subject; and, thirdly, on the justness of the above-mentioned summoning-mechanism. The flow of ideas in the ante-chamber is involuntary—they cannot be created. The exclusion of ideas foreign to the subject is accompanied by a sense of effort and will, whenever the subject is unattractive; "otherwise it proceeds automatically, for if an intruding idea finds nothing to cling to, it is unable to hold its place in the ante-chamber, and slides back again." We must not, however, proceed further with this interesting description, or we should be in danger of transferring the whole chapter to our pages.

Briefly to summarise Mr. Galton's conclusions: The first point is the vast variety of natural faculty in the same race, and still more when regard is had to the whole human family, all which tends to be transmitted.

The second point is that the faculties of men generally are not equal to the claims of modern civilization, in conse-

quence of our ancestors having till recently lived under conditions far from civilized, and the somewhat capricious distribution of inherited powers, affording in this way immunity, more or less, from the ordinary agencies of selection. Mr. Galton has proved the greatly preponderating influence of nature over nurture, by pursuing the life-history of twins, a subject to which, as is well known, he has devoted so much laborious and intelligent investigation. He has shown, indeed, that no improvement in mere education can compensate for a retrograde condition of the gifts of nature.

It may be stated axiomatically that upon race depends the root and flower of human faculty; that humanity consequently is variable, and that, therefore, we are obliged to inquire into the true place and function of man in the Universe. The author confesses that the solution of the problem remains doubtful. In common with an increasing number of inquirers, he is sensible that it is not so transparently clear as is often imagined. One result is the conviction that man is a member of a system of enormous range, resembling from one point of view "a cosmic republic." Confessedly long indeed has the period of growth and development been, under, to all appearance, a very definite system of causative influences, with a splendid profusion of means or instruments and of time, and a disregard of the ignorance which has run counter to, and become the victim of, these conditions.

In the recognition of the awful mysteries of life and of that which Mr. Galton feels to be wholly inscrutable, anterior to the earliest evolution, we find ourselves face to face with intelligent man as its latest outcome. "Man knows," Mr. Galton observes, "how petty he is, but he also perceives that he stands here, on this particular earth, at this particular time, as the heir of untold ages, and in the van of circumstance." Mr. Galton, therefore, thinks that he may be too diffident as to the functions which he can, and ought to perform in the great drama of life, and that he should rise to the consciousness of the power which he possesses of shaping, to some extent at least, the future course of his race. That which Mr. Galton speaks of as "the awful mystery of conscious existence and the inscrutable background of evolution" is referred to in the same spirit by the Waynflete Professor of Physiology (Dr. Burdon Sanderson) in his recent lecture "On the Study of Physiology" at Oxford, when he observes—"Towards the problem of the nature of the psychical concomitants of the excitatory process in the

brain we can contribute nothing, simply because they are not things which we can compare with any standards we possess. All that we can do about them is to localize them, but in accomplishing this, we are well aware that our researches neither help nor hinder us in the endeavour to penetrate the mystery of our own existence. All this is so plain that it would appear superfluous to state it, were there not persons who need to be informed on the subject, persons who imagine that because our method is founded on the assumption that every material process is the product of material influences, every measurable effect the product of measurable causes, we extend that method to things beyond our province, namely, to things which cannot be measured. A physiologist may be a philosopher if he has the gift for it, but from the moment that he enters the field of philosophy he leaves his tools behind him. . . . We are checked, not by the complexity of the phenomena, but by the encounter with something else which as physiologists we have no means of grasping."

The question, of course, arises, how can Man best promote this end? The reply is, by acting in harmony with and advancing in all possible ways the course of development hitherto in operation. He must discover by his intelligence, and expedite by his energy, those changes which the adaptation of circumstance to race, and race to circumstance, demand. The history of the past clearly shows that his influence has been great in the same direction, to secure such ends as conquest or emigration. It is to the unused means of his influence, however, to which Mr. Galton more especially refers. By showing how largely the balance of population may be affected by early marriages, and how endowments have checked the marriages of monks and scholars, he indicates how much greater and better an influence might be exerted by promoting early marriages in classes which it is desirable to favour. He endeavours also to show, though with less success, that "a public recognition in early life of the probability of future performance, as based on the past performance of the ancestors of the child" would exert a powerful influence on progress. For repression of those stocks which it is undesirable to perpetuate, Mr. Galton has no more definite form of Malthusianism to propose than the voluntary celibacy of those who are convinced that their progeny would be unfitted to make good citizens, and for such patriotic bachelors and spinsters he accords in advance the thanks of a grateful country.

Alas for the future of our race and the evolutions of a higher humanity, if these are in ever so small a degree to depend upon such self-denying lovers of their kind! Past development owes its impulse to very different influences and motives than those which the author proposes, and we may reasonably suppose that the development of the future will be on the same lines.

In conclusion we may say that it is always a pleasure to read what Mr. Galton writes. If the results of his investigations are not always a solid gain to our knowledge, and admit only of very limited application to the progress of the race, he at any rate originates a host of suggestions. He has brought to our own branch a mass of fresh ideas, and it is our own fault if we do not utilize and extend them. We confess it is little to the credit of us, medical psychologists, that we have not hitherto pursued the same line of inquiry with like zeal and fertility of experiment.

Die Alcoholischen Geisteskrankheiten in Basler Irrenhause. Vom damaligen Assistenzarzte WILHELM VON SPEYR, 1882.

(*Concluded from p.* 284.)

In our previous notice of Dr. W. von Speyr's sketch of the various forms of mental disturbance induced by alcoholic excess, we cited some of his cases and commentaries on (1) Alcoholismus Acutus, (2) Alcoholic Insanity of the Acute Variety. The remaining varieties, (3) Chronic Alcoholic Insanity, (4) Delirium Tremens, and (5) Chronic Alcoholism are sketched with much discrimination and lucidity, but our space will not allow of our doing justice to the descriptions, and we shall only briefly pass them in review.

Of the cases given under chronic alcoholic insanity, we would refer to that in which there was marked exaltation of ideas, seeing that some difference of opinion exists on the subject. It is the only instance met with by Dr. von Speyr.

W. J. J., a merchant, married. His father was a drunkard. The son squinted from youth, was delicate and nervous, and when a lad of eight had a vision after taking a moderate amount of wine. He masturbated. When older he drank to excess, and took absinthe. The consequence was, after being married three years, he was separated from his wife and was dismissed from his place. Two years after, he was admitted into the Basle Asylum suffering from "delirium potatorum," with delusion, of persecution. In 1867 he was admitted for the second time, labouring under "chronic delusions of persecu-

tion," and remained in the asylum till 1875, when he was discharged on trial. In 1877 he was re-admitted, having slept badly for several weeks, heard voices for four months, and seen a vision. He attributed the cause to over-exertion, not to drink. On admission he looked fairly stout, but had a bloated appearance. The left half of the face betrayed loss of power, tongue very tremulous, spasmodic action of the facial muscles, especially the forehead. Tremor of whole body. Right leg at first somewhat weaker than left. Speech stuttering. Writing slow but very fair. Appetite good, at first diarrhœa. Sleep normal, sometimes headache, also vertigo, much vaso-motor disturbance, blushing on speaking, &c. Subjective sense of well-being; the patient behaved himself in an orderly manner. Intelligence and memory not apparently weakened. At first amiably disposed and attached; afterwards excitable, imperious, and egotistic. He overestimated, with indomitable assurance, his person, capacity, and prospects; was also very vain. He lived in an atmosphere of ideas of persecution. People oppressed him, and withheld from him great sums of money. In mental work he was dull, and if he desired he could not do much on account of dizziness. Unconscious of being ill.

The patient went out on trial in an improved condition in June. He proved himself again quite unequal to the slightest work, as he became ill every time he attempted it. In December he was re-admitted in consequence of threatening, under the influence of hallucinations, to bring an action against some imaginary impostors. On re-admission there was marked emaciation, and an unhealthy, yellow complexion, with contorted face, and tremors. In spite of this, patient maintained he was quite well; only, occasionally he related that he sometimes heard voices, that he was attacked by dizziness, or was nearly suffocated from a weight on the chest. When so affected someone had once threatened to stab him. He had a small goitre, sweated much, and was more sensitive to cold than before. He had hypochondriacal delusions about having a fatty heart and liver. If you gave him pure milk he maintained that you wanted to fatten him to death. Grandiose and suspicious delusions were stronger than ever. Now the doctors were his enemies also. The mental humour he is in changes periodically. The affections were more blunted, the memory still weak, as shown in completely misrepresenting matters of fact. He considers that he has foreseen everything. Still in the asylum.

This chronic alcoholic insanity may be called the drunkard's monomania of persecution; and as Nasse, quoted by the author, has observed, it is characterised by hallucinations, especially those of hearing and sight, by weakening of the intellect and emotions, insane jealousy, frequently exaggerated egoism to the extent of changing the personal identity, with religious exaltation and abatement of the depression, besides athetosis, and the appearance of facial paralysis, and lastly chronic incurable insanity.

Then follow observations on delirium-tremens, based on 65 cases, some of which are detailed. Dr. von Speyr justly observes that before we can appreciate such cases, we must distinguish between those induced by giving up the customary drink, as in prison, for example, and those arising in drunkards suffering from pneumonia and severe injuries, the distinction having reference rather to duration and result than to form of disorder. The one is simple, the other complicated with a severe illness. Referring to the division of the uncomplicated into the two varieties of Magnan—the feverish and the non-feverish—the latter being the "delire alcoolique" of this alienist, the author does not think he is justified in making so fundamental a difference, but holds that the feverish form is only a higher and more dangerous degree of the non-feverish. Rather would he differentiate between (*a*) simple delirium-tremens; (*b*) delirium-tremens following upon an an epileptic attack; (*c*) delirium-tremens complicated with feverish disorders or injuries.

We had translated many passages in this portion of the treatise as worthy of being transferred to our pages, but we find it necessary to omit them and to pass on to the next division, "Chronic Alcoholism," which is essentially characterised by weakness. Hallucinations are the exceptions; delusions may be quite wanting, but there are always defects in the patients' moral character. He is an egotist. As in all other attempts at classification, it is difficult to distinguish the exact point at which chronic alcoholism can be said properly to commence, especially so when we first see the patient when intoxicated, or seedy after a debauch, or with the added complication of delirium-tremens. The writer opposes the view that the latter is only an expression or outbreak of the former. Though it may agree generally with the facts of the case, there are exceptions. Chronic alcoholism may, at any rate, be diagnosed when we find that from such and such a period the patient has been rarely seen sober, or that for a year he has been drinking freely. Such incorrigible intemperance is, truly, a sure sign of chronic alcoholism. It may be noted that the effects of drinking spirits (schnapps) to excess was disastrously increased by the patient having worked in lead; in other cases the system had been weakened by pneumonia and by typhoid.

The well-known physical symptoms of chronic alcoholism were well marked in Dr. von Speyr's patients; puffy and fat appearance, anæmia, premature age, loss of power, bald-

ness, depressed aspect, tremors of tongue and lips, speech thick, greasy and discoloured skin, or congestion of nose and cheeks, atheromatous vessels, hyperidrosis after slight exertion, chronic gastritis, pain at the epigastrium, vomiting, frequent diarrhœa, albuminuria, jaundice, bronchitis and emphysema, and œdema of the limbs. It is all important to remember that in this condition very slight injuries cause bruises, and that their range is unusually extensive, for unjust blame may be attached to attendants under these circumstances at a coroner's inquest. The face was very frequently drawn to one side and the tongue deviated. After death no case of apoplexy was observed, but on careful dissection small apoplectic cicatrices were frequently discovered. In many instances the relatives had died of apoplexy.

The value of Dr. von Speyr's memoir is increased by the fact that he has only made use of cases of a purely alcoholic nature, *i.e.*, disorders of which abuse of alcohol was the principal or exclusive cause. He has rejected every case of acute mania in which onanism or epilepsy could be supposed to come into play in the ætiology. As carefully has he taken into account the forms of alcoholism complicated with disturbances of a hysterical or traumatic nature, and similarly he has disregarded those cases in which there was a transition of alcoholic disorders into progressive paralysis. We have omitted many, and, indeed, some important points, which are well brought out in this thesis; but we have said enough to indicate that the author has made a careful study of alcoholic insanities, and possesses excellent qualifications for an accurate and intelligent clinical observer. We shall look for more papers from him in respect to other forms of mental disease.

A Treatise on Insanity in its Medical Relations. By William A. Hammond, M.D. London: H. K. Lewis. 1883.

We have been long expecting a work on insanity from the American medical press. We have had from time to time valuable contributions to psychological medicine from men in the States to mental disorders. Long ago, but not by any means obsolete, there appeared a classic work on the disorders of the mind, written by the celebrated Dr. Rush. There is in recent times the excellent work of the distinguished Isaac Ray on the Medical Jurisprudence of Insanity, a work which will always mark an era in psycholo-

gical literature; and there is the volume of miscellaneous contributions to medical psychology from the active pen and intelligent brain of the same lamented author, of whom alienists in America are justly proud, and to whose services to the insane, and especially the criminal insane, we gladly bear our testimony. To the esteemed Superintendent of the Pennsylvania Hospital for the Insane, Dr. Kirkbride, we are indebted for highly important and most practical publications on the construction of asylums, and for annual reports of the working of his own institution, which of themselves constitute admirable essays on the treatment of insane persons, and on the duties of society and the legislature towards them—essays which must have materially affected the condition of the insane in the United States. Dr. Pliny Earle, again, has laid the profession of medical psychology under great obligation by his frequent contributions to this branch of medicine, of which he has so long been an eminent authority. Dr. Gray, of Utica, also has during a long course of years occupied a prominent position, and exerted by his writings and asylum work no inconsiderable influence upon psychological medicine.

But from none of these, however, or other men in America, whom we might mention, has there appeared any large work professing to travel over so large an area as is implied by the title at the head of this article, "A Treatise on Insanity in its Medical Relations;" more especially as the term "insanity" is employed by the author in a very wide sense, for Dr. Hammond begins with the statement that as all normal mental phenomena are the result of the action of healthy brain and all abnormal mental manifestations result from the "functionation" (an atrocious term) of diseased brain, the latter ought to be included under the designation of "insanity," as the former are under "sanity." For him there is no middle ground between "sanity" and "insanity."

Dr. Hammond's work includes the consideration of the general principles of the physiology of the human mind; the nature and seat of instinct; sleep and dreams; and, lastly, the description and treatment of insanity. Out of the 718 pages to which this book extends we have to pass through 234 before we arrive at what constitutes for us the most important section of the treatise.

Dr. Hammond commences with the definition and description of insanity, and after citing the definitions usually given by standard authorities, proceeds to give his own

as follows:—"A manifestation of disease of the brain, characterized by a general or partial derangement of one or more faculties of the mind, and in which, while consciousness is not abolished, mental freedom is weakened, perverted, or destroyed."

Subsequently Dr. Hammond wavers, however, and then adopts in preference the definition given by Dr. Cruse, "Insanity is a psychic manifestation of brain disease," with the addition of the words, "unattended by loss of consciousness."

It is very remarkable that Dr. Hammond, after insisting upon the unlimited view of the nature of insanity, with which he sets out, and after contending that there is no middle ground between a healthy and an unhealthy condition of the brain—that the one is the equivalent of sanity and the other of insanity—should, immediately he attempts a practical definition, make a distinction between different unhealthy cerebro-mental states of the most radical kind. A man whose psychic manifestations are affected by cerebral hæmorrhage to the extent of unconsciousness, has confessedly passed into an unhealthy condition of brain, and yet Dr. Hammond is driven to admit that "he certainly is not insane." Again the somnambulist has passed into an unhealthy condition of brain and mind, and ought to be regarded as insane according to the author's first stand-point, but as he is unconscious of his surroundings he cannot be so regarded according to the definition he finally adopts. It is peculiarly unfortunate to make so much hinge upon this subsidiary and epiphenomenal factor, when, as all modern researches in mental physiology show, so large a range of abnormal psychical phenomena occur independently of consciousness. The automatic acts performed by the epileptic, and of which he has no remembrance, must not, according to this definition, be regarded as insane; and if there is to be no middle ground between sanity and insanity they are clearly sane. What again of mental stupor so profound as to leave a complete blank behind it when the patient recovers? Such cases must be excluded from Dr. Hammond's definition of insanity. It is noteworthy that the author in abandoning his own definition for that of Dr. Cruse, appears no longer to regard the weakening of mental freedom as an element in the definition of insanity. So complete a change on a point of fundamental importance arrests our attention, and we look for some explanation. None, however, is vouchsafed us, and in another chapter (p. 681) Dr. Hammond re-

adopts his discarded definition and holds that "mental freedom is weakened, perverted, or destroyed" in all cases of insanity. The value of this part of the definition appears, however, to be of no practical value, for the weakening of mental freedom bears no relation to the loss of responsibility, for the author holds that many of the insane are not only in part, but even wholly accountable for their acts, and ought to be regarded as fully responsible for any crime he or she may commit. Dr. Hammond sees no difficulty in maintaining an unyielding line between legal sanity and legal insanity, and holds that "no better one than that based upon a knowledge of the nature and consequences of an act, and that it is or is not a violation of the law, can be devised" (p. 681). Shade of Ray! What must be your mournful regret to see this legal dogma perpetuated after all the pains you took to explode it, and after you had lived to see at least two intelligent Judges adopt your views of responsibility. Had Dr. Hammond explained this test away till it only meant what Sir James Stephen assures us it does mean, we could have understood, though we should not have agreed with him. But to accept the dogma in its barest form without paraphrase or modification, is indeed a disappointing retrogression, but one which we are glad to think scarcely any Superintendent of an American Asylum will be prepared to endorse. If this work does not faithfully represent the opinions of transatlantic alienists, they ought to let it be clearly known; for on so essential, so vital a question, there ought to be no misunderstanding as to the teaching of the American school of medical psychology, the trusted representative of which we have always regarded as Dr. Ray, whose opinions and whose whole tone towards the law in relation to criminal responsibility strikingly contrast with the sentiment expressed in the work under review.

Dr. Hammond's classification of mental disorders may be said to be neither better nor worse than most of those which have preceded it. It is impossible to regard it as an advance. The difficulty, however, of framing one which is altogether satisfactory is inherent in the subject so long as the physiology of the brain and mental pathology are so far from having advanced to the stage in which we can speak with precision of the parts affected in different forms of insanity and of the nature of the morbid changes which take place.

Dr. Hammond's groups of insanities are psychological in character, although he is obliged to admit that the psychological method cannot be exclusively followed in the way he

had previously attempted in his "Treatise on the Diseases of the Nervous System." There are in the present volume seven divisions presented to the reader, namely, Perceptional, Intellectual, Emotional, Volitional, Compound, and Constitutional Insanities, and, lastly, Arrest of Mental Development. The obvious objection to the first as a distinct division is that unless the intellect, or reasoning faculties, are themselves involved there is no insanity, understood in the practical sense in which it has to be regarded; for it is all important to know whether a person labours under a simple optical illusion, for example, or under visual illusions which he credits, and is, therefore, insane, not only according to received doctrines but the definition of Dr. Hammond himself, when he speaks of the weakening of mental freedom as a necessary element of insanity. To conclude that there is an insanity in cases where the state of the optic nerve, or track, gives rise to an illusion of sight, seems to us totally unwarrantable in theory and a mischievous confusion in practice. The second and third divisions are only open to the criticism which the author himself recognizes, that they necessarily overlap one another, but this is unavoidable in the best psychological classification. It is no doubt of the highest importance to recognize those forms of insanity which are mainly and distinctively emotional, though they may involve more or less of intellectual disorder.

In regard to the volitional group, a grave difficulty presents itself, for in truth the greater number of the forms of mental disease are, in a very true sense, the result of the loss or weakening of the supreme centres, by which the impulses and the thoughts are no longer under control, but are driven wildly along, escaped from the guiding hand of the master. A volitional class is, therefore, too small in its area as given by Dr. Hammond, and is too large for systematic use, seeing that if logically adopted it would comprise nearly all phases of mental disorder. At the same time, a number of interesting cases are introduced under this head; actual paralysis of will (aboulomania), to which Billod has attached great importance, being a very marked condition of insanity, and well worthy of more careful study.

It is to the sub-division, "Volitional morbid influences," that the observation above made of the difficulty of distinguishing between morbid will and impulses no longer inhibited by the will, and therefore morbid, applies. It seems rather anomalous that we have to pass through the four grand divisions of the insanities of Hammond before

we reach, under the term "compound insanities," such important forms as "acute mania" and "dementia," and we have to proceed further still before we arrive at "epileptic" and other striking forms of mental disorder. The last division, "arrest of mental development," is a natural one, and includes "idiocy" and "cretinism." Dr. Hammond's treatise is, however, characterised by the omission of any description of these mental conditions, and is so far necessarily incomplete. We do not propose to follow the author through his description of the sub-divisions of the classes to which we have briefly alluded. We may remark, however, that "katatonia" receives considerable attention. There can be no doubt that there is some hesitation in the British School of Medical Psychology to attach one name to the succession of mental symptoms to which Kahlbaum has given this designation. It is not that anyone disputes the well-marked cataleptoid condition which often occurs in mental stupor, nor doubts that this is frequently preceded and followed by melancholia or by excitement and exaltation. That intense excitement should be the cause of stupor in some instances is only what might be expected, and that after the stupor the previous excitement should return is not remarkable. Whether, however, our present terms do not sufficiently describe all that is necessary, whether the series of phenomena referred to are so united together by a common pathology that they can be regarded as constituting a typical form by itself, are questions still legitimately open to debate. Whatever the decision may ultimately be, it is very desirable to continue the work so well begun by Kahlbaum and Kiernan and expanded by Hammond, of collecting together as many cases as possible which show not only that (as in many other forms of insanity) very different symptoms may arise in the course of the disorder—one phase being the well-recognised state of mental stupor with catalepsy—but that such symptoms are so uniform in their character and succession, and so knit together by the same bond, that the whole form one type of insanity, distinguished by so abnormal a condition of the mind and muscles as to be adequately expressed by one word, and that word katatonia.

Dr. Hammond quotes a case from the "Sketches of Bedlam," which he has no hesitation in regarding as one of katatonia. We confess that if the symptoms there given suffice to constitute it, we do not see what is gained by the use of the term, or that the symptoms tally with the defi-

nition which Dr. Hammond adopts from Kahlbaum. Thus a young man had paroxysms of mental stupor and cataleptic rigidity, in which the whole body was stiff, and the eyes were fixed, staring open, and insensitive to touch. His breathing was very feeble. His body was as stiff as a plank, and he might have been carried about like a ladder. When this unconscious condition passed away he had no recollection whatever of anything that had happened, but said he had had dreams and visions. Afterwards he was dejected and feeble—anything but a state of tension (katatonia).

While we have not hesitated to criticise this work, and while we think it falls short of what a treatise on insanity ought to be at the present day, nay, further, while we deem Dr. Hammond's teaching in relation to criminal responsibility, on the occasion when he refers to it, absolutely mischievous and retrogressive, we consider that he has done his best to arrange and digest in a lucid and attractive manner a large amount of information relative to the manifold forms of mental aberration, and that he has advocated some views and practices in the moral treatment of the insane, which will, we hope, be of service wherever the latter are subjected to the cruelties he asserts to be still practised in some asylums in his own country.

A Treatise on Diseases of the Nervous System. By James Ross, M.D., LL.D., F.R.C.P. Lond., Senior Assist. Phys. to the Manchester Royal Infirmary, &c. *(Illustrated with Lithographs, Photographs, and Three Hundred and Thirty Woodcuts.)* 2nd edit. Revised and enlarged. Two vols. London: Churchill. 1883.

The first edition of this treatise appeared in 1881. The fact that, notwithstanding the size and price of the work, a second edition has been called for so soon shows that the profession are not slow to welcome a really good book when they see it.

The present edition bears the marks of careful revision throughout. One of the most noteworthy features is the insertion of copious references as foot-notes. The text also is enriched by further researches, by additional illustrative cases, and in several cases by fuller descriptions. A large number of new woodcuts have also been added to this edition.

So short a time has elapsed since we reviewed the first

edition, when the main features of the work were pointed out, that we will not now go over the ground afresh. Suffice it to say that the work is now what it was when first published—the best treatise on diseases of the nervous system that has as yet appeared in any language.

W. R. H.

PART III.—PSYCHOLOGICAL RETROSPECT.

1. *Italian Psychological Literature.* By J. R. Gasquet, M.B.

The accumulated numbers of the *Archivio* contain several very interesting papers, read before the "Società Freniatrica," of which Society that journal is the official organ. The following are those most likely to interest our readers.

Dr. Grilli gives a very careful account of *Moral Insanity*, his main conclusions being—first, that most cases of moral insanity are merely ordinary insanity affecting the character rather than the understanding. If any form of true moral insanity exists it is in cases of congenital degeneration, where the moral criteria are absent, or the instincts are depraved.

Dr. Verga's account of the *Ætiology of Insanity* in Italy is carefully compiled from the returns. Pellagra is one of the most frequently assigned causes, in 7·22 per cent. of males and 10·75 of females. Idiocy and cretinism account for 7·77 per cent.; epilepsy for 7·73 per cent. of males, 5·51 of females; 3·93 per cent. are ascribed to alcoholism, and 3·73 males, 1·16 females to sexual excess; while 6·93 per cent. of female cases are set down to uterine and puerperal disease.

Prof. Morselli's elaborate paper on the *Geographical Distribution of Insanity* is vitiated by this fallacy, that it is based upon the number of exemptions from the conscription. At that age insanity is rare, and epilepsy is in some parts of Italy alleged to exist and received as a cause of exemption, where it does not exist. His statistics, therefore, are only of value in so far as they relate to idiocy (including cretinism). This is most frequent in the Alpine and Sub-alpine provinces, next most frequent in the valley of the Po, and rarest in the Latin and Neapolitan provinces, save where the Appennine chain rises to a considerable height in the Abruzzi.

Dr. Riva gave an account of the *Temperature in General Paralysis*, based upon eighteen cases closely observed at Reggio, the temperature being taken between six and eight each morning and evening in the rectum. His conclusions are that in typical cases the temperature is always slightly, though irregularly, above the normal; that periods of excitement are always preceded by increase of temperature, although this also may go before stupor or epileptiform attacks.

Dr. Seppilli has examined 170 inmates of the same asylum for

tendon-reflex. It appears to be usually more distinct in conditions of excitement, particularly in general paralysis, than in other forms of insanity. It is worth noting that he has observed ankle-clonus to come on in a few hours after an attack of hemiplegia.

Dr. Tamassia's account of *Mania Transitoria* is interesting. He mainly devotes himself to pointing out the differences between such cases and those dependent on epilepsy. The attack, he observes, is usually instantaneous; the symptoms point to hyperæmia rather than anæmia; the delirium is not always violent, and need not be hostile (as in epileptics); there is no exhaustion, stupor, or tendency to sleep when the attack is past. In the discussion on this paper some striking cases were related by various speakers.

Transfusion of blood in anæmic insane patients has been tried to some extent in various Italian asylums, and usually with benefit. The plan adopted has been to inject defibrinated blood into the peritoneal cavity. This method appears to cause no suffering or other inconvenience. In the discussion on this subject, Dr. Fea stated that many experiments on dogs had led him to believe this to be the best way to introduce blood into the system. The blood passes mainly through the spleen and retro-peritoneal lymphatic glands, but also in part through the lymphatics in the diaphragm, and stimulates all the blood-making organs to increased activity.

It is greatly to be regretted that the multiplication of journals devoted to our specialty in Italy should have materially diminished the number of original contributions to this, the oldest of them, but such is certainly the case.

The *Archivio di Psichiatria, Scienze Penali ed Antropologia Criminale* contains much interesting matter, mostly bearing, however, on Professor Lombroso's opinions as to the connection between insanity and crime, and as to pellagra. Probably the most striking paper is one by the Professor himself, *On the Sexual Passion (l'amore) in the Insane.* He believes disappointed love is a very rare cause, and successful love a still rarer cause of insanity. It would appear that, in Italy at any rate, unrequited affection does not so often produce insanity as some other varieties of nerve-exhaustion, which are rapidly fatal. He narrates some singular examples of "mute" erotomania; but still more remarkable are those which he has collected of the sexual passion being complicated with various kinds of cruelty or violence. He also relates instances of perverted sexual instinct (inverse or merely paradoxical) as well as of satyriasis and nymphomania. All these are instructively compared with the part which these conditions have played in the world outside asylums, and in persons not reputed to be lunatics.

He has another article on the proposed establishment of *Criminal Lunatic Asylums* in Italy. His main objection is to the suggestion that persons should be committed for a definite time to such asylums on the authority of the Court trying the case. He prefers the Eng-

lish committal "during her Majesty's pleasure," whereby dangerous lunatics can be confined for life.

Dr. Salvioli gives an account of *Hypnotism*, mainly interesting for the contrast he draws between it and natural sleep. He considers that in the former the brain is hyperæmic, and that it cannot be looked upon as a condition of rest, but of peculiar excitement of the nerve-centres which are set free from the influence of external impressions and the guiding power of consciousness and will.

The *Rivista Sperimentale* continues to hold the high place it has occupied, both for original work and for analysis of the progress of science in insanity and medical jurisprudence.

The following are the most important original papers coming from the school of Reggio.

Hyoscyamine has been tried in thirteen cases; and Drs. Seppilli and Riva report that it has been found useful as a sedative and hypnotic, but with no special advantages, in most forms of insanity, over better known and more manageable drugs. It was most successful in recurrent mania and epilepsy; they also suggest that it would probably find its chief employment when it is necessary to remove very excited and violent patients to an asylum.

Dr. Buccola has measured the *time* required for psychical acts in the insane. His conclusions, which are based on a series of most careful experiments which cannot be condensed, are as follows :—The average and the mimimum periods after which a sensation is registered are increased in dementia, idiocy, and in chronic insanity generally. On the other hand in mania, in some cases of simple melancholia, and of epilepsy without mental affection, the average period is lengthened, the minimum remaining the same as in health. The former condition (as Obersteiner pointed out) corresponds to organic degeneration of the cortical cells; the latter to diminished power of attention.

Prof. Tamburini and Seppilli have studied the phenomena of *Hypnotism* in an hysterical patient under care at Reggio. The chief point which seems to have been elicited is the rapidity with which neuro-muscular excitability is produced when this patient is hypnotized, so that the various agents usually employed to cause this (pressure, heat, mustard-leaf, &c.) do so much more readily than usual. This leads them to suggest that in hypnotism there is some molecular change in the nervous system; a similar suggestion (it may be remembered by readers of the last Retrospect) having been made by Schiff, to explain the phenomena of "metalloscopy." They distinguish three stages in hypnotism. In the first, the *Lethargic*, muscular contractility and tendon-reflex are exaggerated; there is hyperæsthesia of hearing and of the ovary; respiration is deep and frequent; the peripheral vessels are dilated. In the *Cataleptic* stage tendon-reflex is lessened or abolished, the limbs are in a condition of passive flexibility; there is complete anæsthesia of all the organs of sense and of the ovary; respiration is infrequent and shallow; the vessels of the surface are con-

tracted. The stage of *Somnambulism* is characterized by general and lasting muscular contraction.

These stages may be produced by only increasing the duration and intensity of the stimuli employed. Their muscular phenomena are evidences, only differing in degree, of an increased excitability of the motor centres. There is a corresponding excitability of the sensory centres, shown by the ready production of hallucinations by suggestion.

Morselli gives a very minute account of the *Specific Gravity of the Brain* in insanity. It is only possible to note here the general results at which he has arrived. He finds that insanity, on the whole, increases the specific gravity of both grey and white matter, especially in adult life. This tendency is rather more marked in the female than in the male, so as to cause the two sexes to be more nearly equal in this respect than they are in health. The highest specific gravity is in alcoholism; epilepsy was also very high, but our author examined only one epileptic's brain. Then follow, in order, the chronic degenerative forms of insanity and acute mania; while those forms accompanied with atrophy of the cerebral substance are lowest in the scale, and most nearly approach the physiological average. The specific gravity is very high in cases of compression by tumour, and high in softening and œdema; it is, on the other hand, low in sclerosis.

Dr. Amadei gives an equally careful investigation of the *Capacity of the Cranium* in the insane. This is based upon the examination of 175 male and 280 female skulls, which are carefully compared with a large collection of skulls of sane persons. The averages are—

1. In the sane.

Males	1474 cubic centimetres.
Females . . .	1376 „ „

2. In the insane.

Males	1544 cubic centimetres.
Females . . .	1341 „ „

The general result thus obtained—that the insane cranial capacity is greater than the sane—is in agreement with what had been previously stated by Meynert, Sommer, and Peli.

But the different forms of insanity contribute in very varying degrees to this result. Thus in idiocy (as might have been expected) we have the smallest capacity, save where some hydrocephalic skull would raise the average if it were reckoned, as our author has not done. In epileptics the capacity is almost normal in the male, and only slightly higher in the female. It is in this series that the greatest number of anomalies occur. In mania the capacity reaches about the average above given for the insane. Finally, in melancholia, the highest averages are reached, viz., 1632 c.c. for males, and 1544 for females, though these figures represent cases of hereditary insanity. The author suggests, to account for this remarkable fact,

that increased capacity of the skull is one evidence of degeneration, development in size being in inverse ratio to development in structure. In general paralysis the skulls examined (of males) were a little above the healthy average. This Dr. Amadei ascribes to the patients having been of a higher class in life, a source of fallacy which is not to be forgotten.

Dr. Buccola has been measuring the *Rapidity of Dilatation of the Iris* after puncturing one hand or arm, employing an apparatus to register the moment at which the pupil is found to dilate. He thus examined 15 cases of general paralysis (13 males and 2 females); in seven the pupils were found not to act at all, while in the remainder the movement was considerably delayed. This appears not to be the case in ordinary insanity, where the period of re-action was found to be the same as in health.

The longest and most elaborate paper in the *Rivista* is one by Prof. Golgi, on *The Minute Anatomy of the Nerve-Centres*. His object is to discover an anatomical basis for some of the data of physiology, selecting particularly the following problems:—1. The connection between the nerve-fibres and the ganglionic cells. 2. The relation between the different forms of ganglionic cells and the functions of the parts where they are found. 3. The arrangement and relations of the elements in the several parts of the nerve-centres. 4. The course of the nerve-fibres and their relation to the groups of ganglionic cells. Space only allows of my extracting a few of the most notable points dealt with in this remarkable essay. He defines nerve-cells to be those only which are provided with a single prolongation, continuous with the fibres. The "protoplasmatic prolongations" of Deiters are not connected with the nerve-fibres, as may be most clearly seen in the fascia dentata. Golgi suggests that they are probably the means by which nutrition is kept up in the cells.

The nerve-prolongation sends off at tolerably regular intervals lateral filaments, which in turn divide and subdivide into an extremely complicated network through all the grey matter. Similar filaments seem to be given off from the ordinary nerve-fibres. There seem, therefore, to be two different ways in which the fibres and cells are connected; either directly by a prolongation from a nerve-cell becoming the cylinder-axis of a fibre, or indirectly by the filaments given off from the prolongations and fibres, which are closely interlaced in the grey matter. Taking the case of the spinal cord, the direct connection seems to prevail especially in the anterior cornua; the indirect connection in the posterior cornua: the former being therefore prevalent in the motor centres, the latter in the sensory.

For the most part each nerve-fibre is connected with separate groups of ganglionic cells; and each ganglionic cell in turn, with nerve-fibres, going in different directions.

His examination of the cortical grey matter leads him to differ from Meynert, and to divide it into the following layers, which gradually shade into each other:—1. An outer layer, composed principally of

rather small pyramidal cells. 2. A middle layer of larger cells, also pyramidal. 3. The inner layer, the cells in which are mostly fusiform, but also polygonal, globose, or irregular in the anterior convolutions, but containing many small cells in the deepest part of this layer in the occipital convolutions. This is the only histological distinction noted by our author in different parts of the convolutions.

We have received the *Archives Italiennes de Biologie* for 1882, a periodical published at Turin, and intended to supply abstracts in French of all the more notable biological papers published in Italy. The only paper bearing on our subject, which has not been already noticed in these Retrospects, is one by Dr. Marcacci, on the *Cortical Motor Centres.* He is led by a careful analysis of 27 cases to conclude that there is no pathological evidence of the existence of localized motor centres in man.

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2. *French Retrospect.*

By Dr. T. W. McDowall.

Les Annales Médico-Psychologiques. Sept., 1880, to Jan., 1881.

The Treatment of Delirium Tremens and of Acute Delirium by Cold Baths and Bromide of Potassium. By Dr. Rosseau.

This short paper essentially consists in the record of two cases of acute delirium.

In the first, the patient was admitted in a state of extreme excitement, the face red, the eyes bright, the temperature increased, the pulse very rapid, full, regular. He had hallucinations, and the delusions usually found in such cases. He was immediately ordered 10 grammes of bromide of potassium, but the excitement and delirium continued during the day and the following night.

Next day the bromide was continued; but in addition, the patient was kept in a cool bath for seven hours, and from time to time cold compresses were applied to the forehead. During this process the excitement and violence disappeared, though his sanity was not completely restored. He had an excellent night, and slept till morning.

On 21st July he was reported to be free from excitement, and quite rational. The baths were discontinued, but the bromide was continued until the 23rd as a precautionary measure. In five days he consumed 50 grammes of that drug. He was discharged on the 29th, quite well.

The second case was admitted on the 18th November, 1879. He suffered from acute delirium, such as is so frequently seen in the beginning of general paralysis. He was 32 years of age, had always been sober in his habits, and there was no history of insanity in his family. He had experienced reverses in business, had led a sedentary life, and was of an exceedingly sanguine temperament.

The night after admission he was very restless in spite of a draught containing 10 grammes of bromide. The face was congested, the skin burning, the pulse strong and rapid, the excitement and restlessness extreme.

On the 19th November the bromide was continued, and he was put in a cool bath from 10 a.m. till 5 p.m. Cold irrigations of the head were constantly renewed, as the temperature of that part of the body was excessive. Some hours after the beginning of this treatment, the agitation diminished, and some flashes of intelligence appeared. He recognised an attendant, talked of his wife, and asked to write a letter to her. During the remainder of the day and during the night he was quite quiet, and his hallucinations did not appear.

On the 20th November he was still free from excitement, but his intelligence was somewhat clouded. The baths were stopped, and during the next five days he was purged by means of pills of calomel and aloes. No further treatment was necessary as the patient was quite well in every respect.

These results of Dr. Rousseau confirm those of Dr. Féréol. This form of treatment has never become popular in England. Some very sad cases have been recorded, in which rapid and fatal syncope occurred, and it is possible that these casualties have deterred physicians from using a most powerful and successful form of treatment in certain cases.

Hypochondriacal Delirium in a Severe Form of Anxious Melancholia. By Dr. Jules Cotard.

The subject of this paper has been under observation for several years. She states that she has no brain, no nerves, no chest, no stomach, no bowels ; that there is nothing left of her but the skin and bones. Neither has she a soul ; God no longer exists ; neither does the devil. Mlle. X., being thus nothing but a disorganised body, has no necessity to eat, she cannot die a natural death, she will live for ever unless she is burnt, fire being her only possible end. Her condition need not be further described, as it is a typical one of melancholia with dominance of religious and hypochondriacal delusions. Sensibility to pain is diminished over the greater portion of the body. Ordinary sensation and the other senses appear normal.

Dr. Cotard has collected a few similar cases from the writings of Esquirol, Leuret, Petit, and others. In all these patients the hypochondriacal delirium presents very similar characters ; they declare that they have no brain, stomach, heart, blood, soul ; sometimes even they have no body.

The author points out that such a condition is very different from that which precedes or accompanies the delirium of persecution.

Another common delusion in such cases is the belief that they cannot die, because their bodies are not in the ordinary conditions of organisation, as, if they could die, they would have been dead long ago.

Dr. Cotard remarks, as specially interesting, that all the patients

who laboured under hypochondriacal delirium with the delusion of immortality, believed they were eternally lost, were possessed by the devil, in short, presented all the characters of demonomania or religious insanity.

Somewhat similar cases are referred to as illustrating the one under consideration, but they are not of special interest. Neither indeed is the one recorded by Dr. Cotard, and we cannot understand why he should suggest a special name for such, and give six special characteristics by which they may be recognised. The fact is that among the educated classes there is no end to the elaboration of delusions, especially in women of a religious and hysterical temperament.

On Brain-disease Due to Lead in its Relations to General Paralysis. By Dr. Emmanuel Regis.

The amount of observation on the relation of the two diseases is limited to about twelve cases, yet there are three distinct opinions regarding them :—

1st. That of Dr. Devouge, who first attracted attention to the subject so long ago as 1852, and who believes that there is a genuine general paralysis of saturnine origin, closely resembling the ordinary disease.

2nd. The original opinion of M. Delasiauve, who in 1851 stated that certain forms of saturnine brain-disease could resemble general paralysis so closely as to simulate it; hence the name "pseudo-paralysie générale saturnine" which he gave to these forms of poisoning. Unfortunately he afterwards changed his opinion, and admitted the existence of a general paralysis due to lead poisoning ; and he even tried to sketch some of the distinctive characteristics.

Voisin supports Delasiauve's first idea, and denies the existence of a genuine saturnine general paralysis.

3rd. M. Falret's opinion is a mixed one. He admits the existence of a genuine saturnine general paralysis, but adds that it presents notable differences from the ordinary disease, differences unfortunately little understood.

Such variety of opinion can be easily understood when it is remembered that the cases described are under a dozen, and besides that we are too ready to admit the etiological influence of lead in paralytics exposed to its influence in their trade. Although a painter or white-lead worker has had attacks of lead colic, and ultimately becomes a general paralytic, it is obvious that the latter disease is not necessarily the result of the action of lead. The relation may be a simple coincidence.

The present paper by Dr. Regis is only introductory to a more elaborate one in preparation, still it is interesting to know his opinions, based as they are on the careful examination of four cases.

1. *Symptomatic differences.*—When we compare a pseudo-general paralytic from lead and a genuine general paralytic, the first thing to attract attention is that the former presents symptoms of lead poison-

ing in addition to the ordinary symptoms of meningo-encephalitis, which are common to both. These signs, which clearly distinguish between the two cases are—physical: 1, blue line on the gums, earthy colour of the skin; 2, heaviness in head, headache, giddiness; 3, cramps, formication, neuralgic pains, partial anesthiæ or hyperæsthesia, disease of the joints, paralyses; 3, epileptic or convulsive symptoms of various intensity. Intellectual: 1, insomnia, dreams, nightmare; 2, hallucinations of sight, causeless terror; 3, delusions of persecution, poisoning, &c. All these symptoms are not present in every case, but the most constant are the blue line on the gums, the earthy colour of the skin, nightmare, hallucinations of sight, imaginary fears and confused delusions of persecution. From their enumeration it is evident how much the mental symptoms produced by lead are like those due to alcohol. This remarkable similarity has been productive of numerous mistakes.

There are other minor differences. In the disease due to lead the inequality of the pupils is sometimes absent; the muscular tremor is more intermittent, more marked, and more spasmodic, and the speech is sometimes so affected as to be unintelligible. The patients are often dirty and completely paralysed when admitted. In addition to the mental symptoms already mentioned, and which are quite transitory, the patients present a type of mental enfeeblement quite distinct from that seen in ordinary general paralysis. Whilst in ordinary paralytics, the mental enfeeblement, at first but slightly marked, becomes gradually worse and ends in the most profound dementia, in the other class of cases the dementia, which shows itself from the first in its greatest intensity, is more apparent than real. On their admission the patients appear to be completely demented, and can scarcely say their own names. Yet in a very short time the intelligence returns, and we are surprised to see patients rapidly emerging from what was believed to be an incurable and fatal illness. Excluding exceptional cases the ordinary paralytic may be described as a gentle, kind creature, ready to bestow his enormous wealth on the first comer. The lead-paralytic, when not completely demented, is of an entirely different disposition. He is irritable, suspicious, rude, selfish.

The diseases are entirely different in their progress.

Ordinary general paralysis goes from bad to worse as a rule. Its invasion is slow, its beginning very insidious. At first the symptoms are scarcely appreciable, and are limited to a few very slight physical or mental symptoms. Gradually these symptoms increase in severity, mind and body become feeble, dementia and paralysis occur, and after a more or less rapid decline in all the vital functions, the patients pass into a state called paralytic marasmus which speedily ends in death.

Saturnine general paralysis pursues an absolutely opposite course. It breaks out suddenly, and at once reaches its worst. The majority of the patients, when they are admitted, are in a state of violent excitement, but this excitement, which is accompanied by nightmare, hallucinations, &c., is only an epiphenomenon of the disease, analo-

gous to the acute symptoms of chronic alcoholism. When this essentially transitory crisis is past the pseudo-general paralysis appears fully developed. When the system is profoundly affected by the poison, as it usually is, the patients are plunged in the most profound cachectic marasmus from the first day. They are dirty, paralysed, demented, incapable of movement, or of uttering a word, so that they appear as if about to die. In a few months these patients leave the asylum, completely recovered. They first cease to be dirty, by degrees their sphincters gradually regain their power; their intelligence returns, and all symptoms of paralysis disappear. When the action of the poison has been less violent, the symptoms are less severe, but their progress is the same, and they disappear with the greater rapidity that they were originally less marked.

Counter-lifting. By Dr. Lunier.

This paper is largely composed of the detailed histories of fourteen cases of theft committed by persons more or less insane. Four were weak-minded; three epileptic; one hysterical; three demented from old age; two demented after other attacks of insanity; and one was a case of morphia-intoxication.

During a thirty years' experience in public asylums Dr. Lunier met with but two genuine cases of kleptomania. He details their history, but there is no reason for reproducing them.

In the few remarks with which Dr. Lunier concludes his paper there is nothing of interest or novelty.

The Clinical Study of Mental Diseases and Psychology. By Dr. Prosper Despine.

It has always appeared to the author that alienist physicians are not sufficiently interested in psychological studies, and he has already pointed out the evil results of this neglect. In this paper he returns to the subject and endeavours to show that it is impossible to prosecute clinical investigations in mental diseases without the aid of psychology, and to exhibit the benefit which the physician might obtain from this science.

This is a subject so thoroughly thrashed out that it is quite unnecessary to give an abstract of the paper. Dr. Despine has nothing new to say about it; indeed it would be surprising if he had.

The Employment of Metals in a Case of Hysteria and Insanity. By Dr. Cullerre.

Since Dr. Burq first published his results a very large number of cases have been published, supporting more or less his conclusions as to the power of metals placed upon the skin to alter the nervous and vascular action and areas varying much in size.

The case published by Dr. Cullerre is a typical example of the kind with which students of nervous diseases have of late become so familiar.

He submitted the patient to the influence of three metals, gold, copper, zinc. Gold had but little effect, copper had more, but the result of zinc was most marked. His results correspond generally with those reported to the Biological Society by Charcot and others, by a Committee specially appointed to enquire into the subject. Every precaution was taken to avoid error and deception. The application of zinc always restored the capillary circulation as well as sensibility to pain, whilst thermic sensibility was perverted, so that the contact of a warm body gave rise to a sensation of cold, and inversely. Nevertheless he never observed the phenomenon of transfer, as happens in cases of anæsthesia which are not dependent on an organic lesion of the nervous centres.

The internal administration of oxide of zinc was followed by the best results. It was given at first in doses amounting to a decigramme per diem. Every five or six days it was increased by the same amount till the quantity taken daily equalled a gramme and a half.

Medico-legal Case. Attempted Murder of Three Persons. Reported by Dr. Dufour.

Although the facts are recorded with great minuteness, there is really nothing special in the case. A man laboured for several years under delusions of persecution, poisoning, &c. In order to escape from the tormentors he resolved to go to America, but he must first procure money for the necessary expenses. He resolved to take the money from a former employer who he knew kept considerable sums in his house, and whom he believed guilty, with the other members of his family, of repeated attempts to poison him. There is one special feature of interest; the gradual development, during several years, of the defined delusions. It is surprising that such delusions remained so long without tragic consequences; for there can be no doubt that delusions of suspicion are in their consequences more dreadful than any other form of insanity, except, perhaps, melancholia.

Medico-legal Case. Violence Towards a Superior Officer. Reported by Dr. E. Dufour.

There are several features of interest and importance in this case. The patient was a soldier. On being found fault with by his corporal, he became frantic with anger and made several attempts to murder him. A military court sent him to an asylum for observation. It was ascertained that he had a hereditary tendency to insanity; that he received a severe injury to the head when a boy, that he was epileptic for a few years, but that he had been free from all symptoms of mental or nervous disease for years, until, indeed, he entered the army. In enlisting he appears to have discovered that he made a mistake, and he confessed that he began to simulate insanity so that he might obtain his discharge. Amongst his comrades he passed as a fool with a wretched temper, though it was observed that the appearance of a superior officer stopped his violence at once. Whilst in prison and

in the asylum he behaved on the contrary just as he thought would suit his purpose best; but he was so simple as to confess his roguery, else his condition might have been one of great difficulty to those commissioned to report on it.

Dr. Dufour is inclined to the opinion that there existed slight mental weakness. In this he is, perhaps, right. The man was weak enough to be a scoundrel, but had sense enough to try to escape the consequences of his wickedness. Such cases are full of difficulty, and each must be judged on its own merits. The line between crime and insanity is sometimes a very fine one, especially in a very considerable percentage of the inmates of our prisons.

Dr. Dufour concluded that his patient was only partially responsible for his acts. In spite of this decision, the Army authorities sent him back to his regiment.

Non-Restraint.

It would have been imagined that this was a subject done to death, yet we find that our worthy French colleagues devoted the better part of three meetings to its discussion. We have no intention of reproducing, even in the briefest way, what was said, for it would profit nothing. English asylums came in for high compliments and severe condemnation, just as the speaker approved or disapproved of the system. The discussion seemed to convince nobody, but was most successful in exciting a good deal of warmth—a most unfortunate result.

Increase of Fibrine in the Blood in a Case of Pericerebritis (General Paralysis). By Dr. Daniel Brunet.

In 30 cases of general paralysis the amount of fibrine was measured by Dr. Brunet, whilst resident at Charenton. He employed the method followed by Andral and Gavarret. Its weight ranged between 1·3 and 5·9 grammes per 1,000, and was in proportion to the intensity of the inflammatory symptoms.

The minimum quantities, 1·3 and 1·86, were obtained from persons affected with general paralysis, slow in its progress and characterised by dementia. At the end of the second stage they were bled for transient symptoms of cerebral congestion.

The amount of fibrine in twenty-four cases varied from 2 gr. to 3·32 gr. The mean quantity for these twenty-four cases was 2·6.

In four cases it exceeded 4 gr. in amount. In these some details are given as to the progress and character of the disease. There were marked symptoms of cerebral congestion, and microscopic examination showed distinct inflammatory changes in the convolutions.

Dr. Brunet's conclusions are that: 1. General Paralysis, like every other chronic inflammation, does not increase the fibrine in the blood when it progresses slowly and regularly. 2. The increase occurs when the inflammatory symptoms become very intense and acute. The fibrine may then reach 5·9 gr. per 1,000.

Contribution to the Study of Folie à Deux. By Dr. E. Marendon de Montyel.

This is an interesting paper, and would be valuable did it contain nothing more than the histories of the patients whose lot it has been to furnish examples of conditions not often observed. It is only very rarely that two persons, *e.g.*, husband and wife, become insane at the same times, but such coincidences have attracted the attention of some French writers, notably MM. Lasègue and Falret, and more recently Dr. Regis.

Want of space compels us to be brief, and to reproduce only Dr. de Montyel's conclusions, but we would recommend the whole paper to the attention of our readers. In these days of careless, and often useless writing, it is pleasant to read cases so carefully and elegantly described.

The ideas on which the whole paper is based may be summarised as follows :—

I. *Folie à deux* includes three perfectly-distinct orders of cases.

(a.) *Folie imposée*, in which a lunatic imposes his delusions on a person intellectually and morally weaker than himself, always excepting certain conditions already indicated in MM. Lasègue and Falret's paper.

(b.) *Simultaneous insanity*, in which two persons, hereditarily predisposed, contract at the same time the same form of insanity, always excepting certain conditions already indicated in M. Regis's paper.

(c.) *Communicated insanity*, in which a lunatic communicates his hallucinations and delusions to one hereditarily predisposed to insanity.

II. The union of three conditions appears to be necessary for the production of *communicated insanity*.

(a.) A well-marked hereditary predisposition in the person to whom the insanity is to be communicated.

(b.) At all times, an exceedingly intimate association and companionship between the two future co-lunatics.

(c.) An incessant action by the lunatic upon his sane companion so as to induce him to share his hallucinations and delusions.

III. From a medico-legal point of view, in *imposed insanity, the passive person* is feeble-minded, an imbecile ; but even when he co-operates in insane acts with the *active* person, he should not be considered lunatic; on the contrary, in *simultaneous insanity* and in *communicated insanity*, both co-deliriants are lunatic.

IV. From a medico-legal point of view, in *folie imposée*, the probability of the delusion is relative, and the expert must thoroughly understand the previous mental condition of the passive agent before drawing any conclusions.

V. *Simultaneous insanity* and *communicated insanity* are only two very good examples of the general influence of surroundings upon the forms assumed by mental disease.

VI. It is also by the general influence of surroundings that we must explain the singular fact that all examples of *folie à deux* present delusions of persecution, *the* insanity of the 19th century.

PART IV.—NOTES AND NEWS.

THE MEDICO-PSYCHOLOGICAL ASSOCIATION.

The Quarterly Meeting of the Medico-Psychological Association was held at Bethlem Hospital, on Friday, the 26th October, 1883, Dr. Manley, the President-Elect presiding, in the unavoidable absence of the President, Dr. Orange.

Dr. MANLEY said that before proceeding with the business on the Agenda, he had to propose for adoption the following Resolution in reference to the late fatal fire at Southall Park, at which Dr. Boyd had lost his life:—

"That this Association, meeting for the first time since the event referred to in the Resolution, desires to record its profound sorrow and regret that one of its oldest and most estimable members, Dr. Boyd, has been removed by a lamentable accident, and to express its sense of the services which Dr. Boyd had throughout his life rendered to the insane poor and to psychological medicine—more particularly the pathology of insanity. This Meeting desires at the same time to convey to the sorrowing members of Dr. Boyd's family its deep sympathy in their bereavement, rendered still more distressing by the circumstances under which it occurred."

Dr. Boyd had been his (Dr. Manley's) oldest friend, and it was under Dr. Boyd that he had begun his work. He had seen Dr. Boyd a very short time before his death, and had seen a letter which had been sent to Dr. Boyd by Lord Carlingford, thanking him for suggestions he had made in regard to the insane poor, and promising attention to them. One of Dr. Boyd's suggestions was as to sending patients to asylums without waiting for an order from the Justice; probably the same clause as that in the Scotch Bill.

Dr. HACK TUKE said that he had much pleasure in seconding this resolution. He had known Dr. Boyd for many years, more or less intimately, and had learnt to appreciate his sterling character, his worth, his sincerity, and his kindliness of heart. In their own department Dr. Boyd had, during a long period, done very good work. Those who referred to the earlier numbers of the Journal would find papers of Dr. Boyd's on subjects of great importance to their own department of medicine, especially in regard to what the resolution mentioned—cerebral pathology. Dr. Boyd was one of the earliest in the field, pursuing his researches in the post-mortem room with unwearied energy, and in recent times also he always expressed the greatest interest in the subject. His papers on General Paralysis were marked by original observation and retain their value. Within the last two or three years, Dr. Boyd had contributed a useful practical paper in regard to the proper provision for the insane poor, and in one of the weekly journals—the "Medical Times and Gazette," he had recently written a paper on the "Relative Weight of the Heart in Sane and Insane Persons," showing how much he had retained his interest in subjects which had engaged his attention in his younger years. In an evening which he (Dr. Tuke) had pleasantly spent with him not long before the lamentable fire at Southall Park, Dr. Boyd had referred with great interest and zeal to several subjects connected with medico-psychology, and altogether Dr. Boyd's career had been an example for them all in regard to retaining in advanced life a warm interest in the subjects which ought to occupy their attention. A tribute had already been paid to Dr. Boyd's memory in the Journal, and he should be repeating what appeared there if he said more. He cordially seconded the resolution.

The resolution was then carried unanimously.

The following gentlemen were elected members of the Association, viz:—

P. W. Macdonald, M.B., C.M. Abd., Asst. Medl. Officer, Dorset County Asylum, near Dorchester; R. Brayn, L.R.C.P. Lond., Med. Off. H.M. Invalid Convict Prison, Woking, Surrey; E. L. Rowe, L.R.C.P. Edin., Asst. Med. Off.,

Gloucester County Asylum; C. E. Brunton, B.A., M.B., Asst. Med. Off., Colney Hatch Asylum.

Dr. RAYNER brought under the notice of the Association two cases which were of interest from a therapeutical point of view, in which patients had attempted to swallow large foreign substances, these lodging in the œsophagus just below the larynx. One case was that of a stone; the other a potato. In the first case Dr. Rayner was afraid to use any force, as he did not know whether the stone might have angles, and there was so much retching going on that extraction by the forceps would have been difficult. He injected into the rectum half an ounce of bromide of potassium with a few drops of opium. Very soon after the injection the throat became completely anæsthesic, retching ceased, and the stone passed away into the stomach. In the potato case, using the same treatment, the retching did not cease altogether, but the potato was expelled. Probably in both cases the removal of the foreign body was due to the anæsthesia produced in the œsophagus. The reflex irritation of the foreign body in the æsophagus would set up such an amount of irregular contraction that the expulsion of the substance would be impossible. These two cases were interesting as showing that by the treatment adopted, a great deal of trouble was saved by not having to force these foreign bodies down or get them up.

Dr. SAVAGE said he should like to know whether chloroform had been tried in cases of this sort. Of course that would be much more rapid, but whether one dared to administer it to a man appearing to be struggling for his breath was questionable. Then, too, were Dr. Rayner's cases both general paralytics?

Dr. RAYNER—No.

Dr. SAVAGE—Because his experience was that where patients had tried to destroy themselves, or, like the ostrich, had eaten all kinds of rubbish they had frequently, from the time of subsequent illness due to the swallowing, again to recover. He had published a case of a woman who swallowed a lot of screws, bottle corks, &c. She was seized with a most terrible pain across the abdomen. In this case he profited by the advice of Dr. Murchison, who had said—"give ten grains of calomel—if that does not do give more." This woman only required 10 grains of calomel. She passed a huge stool. Sometime afterwards she came to him and said she had seen the report of her case, and she was pleased to find that he had given a good prognosis. But the whole thing was whether such cases were benefited by the severe shock—and that led up to this, viz:—whether other members of the specialty were reverting to the old lines, as he felt most distinctly that he was doing. He would like to shave many more heads and apply many more counter-irritants than he did. There was a general feeling against it, and it did not look ornamental, but there were a few cases of intractable mania which he thought would be improved greatly by counter-irritation. Cases had been most markedly palliated by it.

Dr. RAYNER said that he might mention one point in regard to the stone case, which was, that the stone which was swallowed was passed very rapidly. Although it was a large stone, it was passed by the bowel within twenty-four hours, and it had occurred to him whether the rapid passing through the pylorus might not have been produced by the anæsthesic effect of the bromide on the mucous membrane of the stomach. If so, in cases of patients who had swallowed large substances it might be worth while to try the effect of a large dose of bromide, with the view of enabling them to pass the pylorus rapidly. He had been using blistering very extensively for the last year or two, with very satisfactory results, particularly in cases of stupor.

Dr. HACK TUKE thought it would be a great pity if Dr. Savage, from the idea of there being a general feeling against shaving patients' heads, should be deterred from applying so excellent a remedy as a blister or some form of counter irritation. The cases which improved after a long period of insanity, often owed their recovery to counter irritation induced either by man or nature.

Dr. Manley said that with regard to foreign bodies he might refer to a paper in which an emetic was recommended. He remembered seeing a patient who had swallowed in the airing ground four ounces and a half of flint stones, and they were all passed after a dose of castor oil, and without the least difficulty. He had the stones in his possession at the present time. This statement, bearing upon fish-bones, would be a very useful thing if it were a fact that fish-bones were ejected after an emetic, because now that fish dinners were used it was possible that patients might be choked. In regard to choking, he thought that in the case of a simple idiot they would very often find recovery directly after the body impacted had been removed, but it was very different with general paralytics, because they suffered so from the shock that they often died directly afterwards, although the body had been removed from the larynx.

Dr. Mickle read a paper "On Rectal Feeding and Medication."*

Dr. Fletcher Beach said that for three or four years past he had been in the habit of using rectal feeding in the case of imbecile children. Some years ago he was called to see a child in the status epilepticus, and injected twenty grains of bromide of potassium, and in twenty minutes the retching ceased. Since then he had been in the habit of using it in all cases in which it had been impossible to administer by the mouth, more especially in two cases which he had reported. In some cases he had had to administer food by the rectum even as long as a week. The only thing he had found it necessary to observe was this, the less stimulant given the better. A child would retain milk or beef tea, but, if brandy were given, it seemed to act as an irritant. He had not yet used Carnrick's Peptonoids, which were very extensively used in America.

Dr. Hy. Lewis mentioned a case in which peptonized food had been administered per anum for a whole month, at the end of which time the patient on being weighed, was found to have gained one pound in weight. He also referred to a case which had occurred in the Convalescent Home at Folkestone, in which a patient with organic disease of the bowels was treated in the same way for six weeks. During that time she gained strength and flesh, and the medical officer found that when the peptonized food was only retained for an hour it was returned in the form of chyme, which would be found in the upper part of the intestines.

Dr. Manley said that he had used rectal feeding a great deal, but not peptonized food. He used a preparation of arrowroot made with the strongest beef tea, and used two ounces. He had found it useful in cases of cut-throat, and during the coma of epilepsy.

The Secretary stated that the paper promised by Dr. Bonville Fox was not forthcoming, Dr. Fox himself being ill and unable to attend.

Dr. Savage said that the members would perhaps like to hear that during the last two or three days the electric light had been on trial at Bethlem Hospital. It was only an experiment, and if those who could not then stop to see the lighting-up, would care to see it another time, he should be very pleased if they would look in any evening during the next five or six weeks to see it and say what they thought of it. A certain company had undertaken for a certain sum of money, to make use of the engines at Bethlem and illuminate for a certain time. At present there was no accumulator, and the engines were not suited to the work, so that the light was not absolutely steady. The company said that the fitting-up of the whole apparatus, including the putting down an engine, &c., for the whole place would be £900, and that then there would be a saving of £300 a year in the gas bill. If that were true—if they could thus recover themselves in three years and have a thoroughly good light it would be a great success. But there were other points to be considered at Bethlem. With the large number of gas jets in each gallery, they were dependent to a very large extent on gas for heating. There was a great amount of heat given by gas in comparison with electricity. He could not at present speak definitely as to the amount of the difference. Up to the present

* This Paper will appear in the next Number of the Journal

time the temperature in the wards had been about the same since the electric light was introduced as when gas was used, but that might be to a very great extent owing to the recent warm weather.

METROPOLITAN COUNTIES BRANCH: SOUTH LONDON DISTRICT.

The first meeting of the session was held at St. Thomas's Hospital, on Oct. 24th: Dr. C. J. HARE, President of the Metropolitan Counties Branch, in the chair.

Dr. BRISTOWE read a paper on Masked Cerebral Tuberculosis.

Dr. G. H. SAVAGE read a paper on the case of Gouldstone, and on the Evidence of Insanity in Criminal Cases.

In the debate to which it gave rise, Drs. R. Fowler, Hack Tuke, Nicolson, and Bucknill, and Mr. S. Benton took part.

Dr. NICOLSON described the present condition of Gouldstone, who is now in Broadmoor, and confirmed the opinion formed by the writer of the paper. No doubt he was insane.

Dr. HACK TUKE said that he hoped some practical good would result from the paper, and the discussion, and to this end he should conclude with moving a resolution. Nothing could more clearly prove the necessity of some reform in the mode of examining prisoners in regard to whom the question of insanity arose. What could be more absurd and unsatisfactory than that the examination of the murderer should have been made by the principal medical witness at the eleventh hour, and for only twenty minutes. What had been done after the trial should have been done before. He had brought this subject under the notice of the Medico-Psychological Association several years ago, and made a proposal in accordance with this view, which was warmly supported, but nothing had yet been practically done to remedy the evil. At the last annual meeting, however, in August, the President, Dr. Orange, had revived the question, and a resolution had been unanimously passed advocating a change. He should now propose a resolution almost identical with it, and he hoped to obtain the support of this branch of the British Medical Association. It was as follows:—"That persons charged with crime, respecting whom there is any suspicion of insanity, shall be examined at the expense of the Treasury, by three medical men—namely, the prison surgeon, the superintendent of the asylum in the neighbourhood, and a medical man of repute practising in the vicinity, and that their joint report shall be handed to the counsel for the prosecution."

Mr. S. BENTON seconded it, and it was supported by other speakers.

Dr. BUCKNILL was not able to support the resolution. He thought that the course pursued in the United States was preferable. With regard to the case of Gouldstone, he sympathized with Dr. Savage, in having to give an opinion after such limited opportunities of observation. He demurred to making use of the fact that he had insane ancestors or relatives, as an argument in favour of his insanity. If that was a cause, all his brothers and sisters ought to have been insane. The question is not, are a man's parents insane, but is the man himself insane? He (Dr. Bucknill) had hoped to hear from Dr. Nicholson more than a confirmation of Dr. Savage's opinion, for he had not mentioned any facts which proved him to be insane at the present time. He should very much like to see Dr. Orange's report. It was due to the public that these reports should be published.

Dr. SAVAGE, in briefly replying, said he was quite satisfied with the discussion his remarks had elicited. He would support Dr. Tuke's resolution. The present state of things was most anomalous. With regard to what Dr. Bucknill had said on insane inheritance, he would reply that if a man had webbed fingers and had a family, although only one child had webbed fingers he should consider the two facts stood in causal relation and not coincidentally. He

thanked the members for the attention with which they had listened to his paper.

The Resolution was then put by the President, and was carried.

WILLIAM GOULDSTONE.

CENTRAL CRIMINAL COURT, SEPT. 14, 1883.

(*Before* MR. JUSTICE DAY.)

[*Times*, Sept. 15, 1883.]

William Gouldstone, 26, blacksmith, was placed upon his trial upon an indictment charging him with the wilful murder of his five children—Charles, Herbert, and Frederick Gouldstone, and two male infants, on August 8.

The prisoner pleaded "Not Guilty."

Mr. Poland and Mr. Montagu Williams conducted the prosecution for the Crown; Mr. Grain and Mr. Elliot were counsel for the defence.

The prisoner was first tried upon the indictment charging him with the wilful murder of his eldest child, Charles Gouldstone.

Mr. Poland, in opening the case, said the prisoner, William Gouldstone, was charged in this indictment with the wilful murder of Charles Gouldstone, his son. The prisoner had been for five years in the service of a firm in Lower Thames street. He had been living for ten weeks at Walthamstow with his wife and three children—the eldest, the subject of the indictment, Charles, being three-and-a-half years, Herbert two-and-a-half years, and Frederick 16 months old. On the 1st August his wife, at the place where they were then living, was confined of twins. The prisoner was by all accounts a sober, hard-working man, and had been maintaining his wife and children by his daily labour. There was no doubt, receiving as he did about 25s. per week, that he regretted that his wife was confined of twins so as to add so seriously, as he thought, to the number of his children. Up to that time, the learned counsel repeated, the prisoner had been sober and industrious. On the day of the confinement and on the following night the landlady, for the first time, saw that he was somewhat the worse for drink. As he (Mr. Poland) gathered from the evidence, the prisoner continued at his work until the Friday before Bank Holiday, Monday, August 6th. On the Monday following—Bank Holiday—the prisoner was, of course, not at work, neither did he go to his employment on Tuesday, 7th, or Wednesday, 8th August, although he did not remain at home on those days. On the 8th August he came home at half-past 5 in the evening, his usual time for returning being half-past 7. When he came home, the two eldest children were playing in the kitchen, and in the bedroom on the same floor was his wife, the third child Frederick, and the two babies, which were being suckled by the mother. Mrs. Hamilton, a lodger who had kindly attended Mrs. Gouldstone during her confinement, was also in the room washing the children. The jury would have evidence that the prisoner, who was then apparently sober, took from the bedroom into the kitchen the child Frederick, and they would find that after going backwards and forwards into the room, he went into the kitchen, moved the perambulator, and placed a chair near the cistern. It would be proved beyond all question that the prisoner drowned the three eldest children in the cistern, and a piece of cord was subsequently found tied round the neck of one. Having thus destroyed the lives of these three children, the prisoner went into the bedroom where his wife was. Mrs. Hamilton, thinking he wanted to speak privately to his wife, left the room, leaving him alone with his wife and the two babies. The prisoner locked the door, and Mrs. Hamilton then heard screams of "murder" coming from Mrs. Gouldstone, who called out that the prisoner was murdering her children. Mrs. Hamilton, in company with the landlady of the house, endeavoured to

force the room door open, but they were unable to do so. The prisoner soon afterwards opened the door and said, "I have killed the children, and I am happy now," and then he said to his wife "Your other three children are in the cistern." Mrs. Hamilton found that, although the two babies were not dead, there had been inflicted upon them very serious injuries with a hammer which was found lying in the room. The infants' skulls had been fractured, and on the following night they both died. Upon the prisoner making this statement Mrs. Hamilton went into the kitchen, and there she found lying dead upon the floor the three elder children, the bodies being saturated with water; and evidently their death had been caused by drowning in the cistern. The act must have been done with great deliberation, as only 14 inches of water was in the cistern at the time. The prisoner said further to his wife, "All the children are dead now. I shall be hung, and you will be single. You wished them dead, and now they are." The police were sent for, and the wife, knowing that he was to be taken away, kissed him, and asked him what money he had about him. He gave her what he had, and he was then taken to the police station. When the police came they found him with his coat off and with his shirt sleeves tucked up. The prisoner said, "Good evening, policeman. I have done it. Now I am happy, and ready for the rope." He repeated the statement to his wife that he had killed the children and that he should be hanged. While on the way to the police station he said to the officer who had him in charge, "When I took my money last week (referring to the previous Friday when he was paid) I thought of buying a revolver to do it with, but I altered my mind, as I thought it would make too much noise. I had a hard job with the two biggest, but the other little ——— I soon settled him. I thought it was getting too hot with five kids within three-and-a-half years, and I thought it was time to put a stop to it." When charged, the prisoner replied, "That is right; I am happy now. I did it like a man." After he had been placed in the cell, the prisoner spoke to the constable who was placed in charge of him, and said, "I had an extra drop of drink to-day to accomplish the job. Five of them have gone to glory, and a good job too." He added that he was sorry for his wife, but the children would be better off in heaven, if there was such a place, than leaving them to the mercy of the world. The prisoner further stated that he wished he had killed the little ones out of the way; he did not know whether he hit them once or twice; and he had had it preying on his mind for some time previously. Up to the time of the occurrence the prisoner was pursuing his ordinary calling, and whether he had been drinking at the time the prosecution were not able to prove, but there was his own statement to that effect. The learned counsel pointed out that the prisoner, according to his own statement, had considered the matter beforehand, and whether he should buy a revolver to commit the act, and he seemed at length to have come to the terrible determination to take the lives of his children, thinking that, instead of having the burden of maintaining them and leaving them to struggle in the world, he would take their lives. He preferred to take that course, knowing thoroughly well what he was about, and that, by the law of England, it was a crime to take human life, for he said, "I shall be hung, and I am ready for the rope." This expression indicated that he was conscious at the time that he was committing a crime against the law of the land. If he knew the nature and quality of the act he was committing, and that it was a crime, he was responsible to the law for that act.

Mr. Grain, in opening the case for the defence, submitted that the prisoner, according to the evidence of the prosecution alone, was not in a state of mind to know the nature of the act he was committing, for it otherwise would have been impossible that the kind and affectionate father, the good husband, the well-conducted and meritorious man, in the short space of time alleged, should have murdered in so barbarous a manner his five children, three of whom had been playing at his knee, the two infants being suckled at their mother's breast. He (Mr. Grain) should call before them witness after witness, who would prove that in both branches of the prisoner's family there was un-

doubtedly hereditary insanity. The accused's mother at the present time was a lunatic, and although she was not confined in an asylum, yet she was undoubtedly insane, and at the time of his birth she was not in her right mind. His aunt on his mother's side was also not in a right state of mind. The insanity was not confined to the maternal side alone. He should be able to prove that on the paternal side there was also insanity in the family. His second cousin on his father's side died a lunatic, and other members of the family on the same side had been of unsound mind. He should call Dr. Savage, the principal physician at Bethlem Hospital, and he would say that having examined the prisoner, and heard the evidence of insanity in both branches of the family, he was of opinion that he had had a hereditary tendency to a weak mind. He submitted that the prisoner's mind became unhinged before he committed the act, and that unless it had become so it would have been impossible for him to have committed a deed of so awful a character.

A number of witnesses were then called in support of the defence.

Thomas Gouldstone, examined by Mr. Grain for the defence, said—I am the father of the prisoner at the bar. His mother is alive, and is very bad in her mind now, and has been for many years. A woman has to be employed to look after her. Once she attempted to strangle herself, and once I took a knife away from her. About eight weeks ago she threatened to take her life. When the prisoner was born she was in a bad state of mind. My wife's sister is also not in her right mind. William Gouldstone, a second cousin of mine, died in a madhouse, and my father's sister wore a strait jacket for some years.

Cross-examined by Mr. Poland.—All my children have been quite right except the prisoner. My wife has never been in an asylum. She is a sober woman. When I saw my son about eight weeks ago he seemed queer.

Robert Gouldstone, the eldest son of the last witness, proved that his mother had threatened to make an end of herself, and the family had had to look after her and keep knives out of her way. The prisoner was ruptured some six or seven years ago, and about this time frequently complained of pains in his head.

Emily Gouldstone, sister of the prisoner, deposed that through troubles in business her mother had several times attempted to commit suicide. She last saw the prisoner about two months since at her sister's house.

William Graves, foreman at the Falkirk Ironworks, Thames street, where the prisoner was employed, deposed that he had known him since childhood. He had always known him to live happily with his wife and family. On the 2nd of August, after his wife's confinement, witness noticed a change in his manner, and spoke to him about it. The accused complained of pains in the head. Witness paid him his wages the next day, and gave him a customary present of 10s.

A number of fellow workmen also gave evidence on the prisoner's behalf. On several occasions the prisoner told a man named Cakebread that he would throw himself under a train if he thought he would be killed instantaneously and without pain, and at another time he said that he would throw himself down the lift if he could do so without torture. He also stated to other men that he wished he was dead, and he complained of pains in his head arising from the rupture. He also expressed a wish that someone would knock him on the head. He bore the character of a quiet and steady man, and if anything was rather morose.

Mr. Kennard, one of the prisoner's employers, stated that he knew nothing of him personally, but the general feeling among his fellow workmen was that he was insane.

Charles Gouldstone, a cousin of the prisoner's father, deposed that his son (the prisoner's second cousin) had been confined in a lunatic asylum for 16 months from 1880.

Dr. Sunderland, a medical man practising at Thaxted, in Essex, spoke to having attended the prisoner's mother, who was of unsound mind, for eight years. The form of insanity she was suffering from was despondency. He

also attended Mrs. Andrews, her sister, who suffered from the same malady. Replying to Mr. Poland, witness said that neither the mother nor her sister had been certified as insane.

Dr. Savage, the principal physician of the Bethlem Hospital, deposed that he had examined the prisoner, and from the examination alone he considered him rather weak in his mind, as was evidenced by slowness of appreciation of questions concerning the crime of which he was accused. When speaking about it he seemed not to appreciate in any way the gravity of the charge. Beyond that, from his personal examination, witness could say nothing. He had heard the evidence of the prisoner being a fond husband and father and a quiet steady workman, and details of the case, and he should think that his mind was unsound at the time the act was committed. He had heard his fellow workmen describe his wishing to be dead, and of his wanting to fall down the lift, and witness was of opinion that such symptoms were frequently present with persons of unsound mind.

The witness was about to be asked what conclusion he arrived at after hearing the evidence of insanity on both the paternal and maternal side of the family, when

Mr. Justice Day said it seemed to him that that was the question the jury had to decide. A doctor was entitled to give his medical evidence, but not to draw a conclusion which the jury had to draw.

Dr. Savage, in answer to further questions, said the insanity on the mother's side being proved, he thought there would be a great tendency for the prisoner to become insane, and that if insanity, even in a remote degree, was proved on the male side the liability to insanity in the offspring would be increased to a considerable extent. At Bethlem the last patient who died without being removed to Broadmoor, was a woman who had killed her whole family.

Replying to Mr. Poland, witness said he examined the prisoner on Thursday for between a quarter and half an hour. He was then called by the prisoner's solicitor, and he knew he had to examine him as to the state of his mind. From his conversation alone there was nothing to show that he was otherwise than a sane man. From what witness saw of him yesterday he would not certify the prisoner to be a lunatic, and he would say that he was not actively suffering from any form of mental disease that he knew of. He could not, therefore, certify that he was a lunatic. His conversation with witness was that of a rational man, and he should say the prisoner knew that the penalty awarded by law for the crime of murder was death. When he said he thought the prisoner was of unsound mind at the time of the commission of the act he formed the opinion from what he heard in court and from his examination of him. He thought he knew the penalty of what he was doing at the time, and that he had killed the children knowing that the penalty was death.

This concluded the evidence for the defence.

Mr. Justice Day then proceeded to sum up on the whole case. The prisoner, he said, was indicted for the wilful murder of his five children, and that he killed them was beyond all question. The question for the jury to determine was whether he killed them in such circumstances as would amount to the crime of wilful murder. The killing of a human being was presumptive murder; but the circumstances in which it took place might show that it did not amount to that crime, but that it amounted merely to manslaughter, justifiable homicide, or homicide by misadventure, or the act of a not reasonable being. The only question for the jury was whether this was the act of a reasonable being in the sense he would explain to them. The matter of law was one unquestionably for him, and the jury were bound to take his instructions with regard to the law, in doing which they would be incurring no responsibility upon themselves. He told them, as a matter of law, that if the prisoner at the time he killed the children knew the nature and quality of the act he was committing and knew that he was doing wrong, then he was guilty of wilful murder. The nature and quality of the act meant that the

man knew what it was that he was doing—that was to say, that he knew he was killing a fellow creature. He repeated that if a man killed a fellow creature knowing at the time that he was doing wrong then he was guilty of wilful murder. The only question, therefore, for them to determine was whether the prisoner knew the nature and quality of the act he was committing, and whether he knew it was wrong. The jury were bound to give their verdict according to the evidence, and to administer justice according to law. The circumstances were very sad, and a painful duty rested on the jury and all concerned in the trial. However painful that duty was they must not shrink from the performance of their duties. The only defence, and the one which had been set up on behalf of the prisoner with the utmost skill, discreetness, and ability by his learned counsel, Mr. Grain, was that the accused at the time he committed the act was of unsound mind, and therefore not responsible for his actions. His Lordship then carefully reviewed the evidence which had been given on the part of the defence in order to prove insanity, and remarked that previous to the 8th of August no one would have said the prisoner was of unsound mind, and referring to the statement made by the accused, he observed that it was difficult to say that at the time he did the deed he did not know what he was doing. He had had handed to him by the learned counsel for the prosecution, an Act of Parliament passed towards the end of last month—of the existence of which he was not previously aware, as no notice had been given to him—which might affect the form of their verdict. The former and logical law was simply this:—Wilful murder involved malice aforethought, and a person of unsound mind was incapable of forming an intention or malice aforethought, and therefore incapable of murder. In such circumstances a jury found a person "Not Guilty on the ground of insanity." The law, however, had been altered, and if the jury found that the prisoner was insane at the time he committed the act they would have to return a special verdict that he committed the act, but was insane at the time. If, on the other hand, they found that he knew the nature and quality of the act when he killed his children, and that he was not of unsound mind, they must find him guilty, and the new Act would not affect that verdict.

The jury retired to consider their verdict, and, after an absence of about a quarter of an hour, returned into Court, finding the prisoner *Guilty*.

Being asked in the usual course whether he had anything to say why sentence of death should not be passed upon him, the prisoner replied in the negative.

Silence was then formally proclaimed, and

Mr. Justice Day, having assumed the black cap, proceeded to pass sentence of death.

The prisoner, who had preserved a calm and undisturbed demeanour throughout the trial, was then removed.

TO THE EDITOR OF *The Times*.

SIR,—I feel it my duty to write shortly about the case of William Gouldstone, the murderer of his five children. Justice demands further investigation of the case. The facts are plain. A young man of 26, who had been a well-behaved and industrious man, odd in some of his ways, is seized with fear of impending ruin to himself and family, and kills them to send them to heaven. The act is an insane one, and I think little more should have been needed to prove it to be such, but it was proved that his mother and aunt both suffered from precisely similar fears of ruin, and though the Judge ridiculed the importance of a second cousin on his father's side being insane, I would repeat emphatically that there being an insane taint which could have been shown to exist in several second cousins and others on the father's side, was of great importance. A great deal was made of my statement that I could not certify to his insanity from my personal interview of 15 to 30 minutes. It does not follow that the man may not have been insane at the time the act was committed.

There is the feeling abroad that a man if insane and irresponsible is always so, whereas the most insane people often are collected enough during the greater part of their lives. The poor man Gouldstone is, to my mind, a typical case of insanity associated with insane parentage. He had done his work, which was purely mechanical, well, but he had no power to resist, and the act he perpetrated depended on an insane feeling of misery. I have no doubt he would have sooner or later developed delusions.

The medical officer to the House of Detention told me he considered him to be suffering from melancholia.

I trust this prisoner will not be allowed to be hanged. I may say that I am not one who is in the habit of defending criminals on the plea of insanity.

I am, yours truly,

GEO. H. SAVAGE, M.D.,
Physician Bethlem Hospital.

September 15, 1883.

TO THE EDITOR OF *The Daily Telegraph.*

Sept. 18, 1883.

SIR,—I feel bound to take notice of the letters written to you by "One of the Jury" in this case, as there seems to be great danger that the prisoner will suffer through misunderstanding of my opinion. The skilful cross-examination of Mr. Poland gave me no opportunity of representing my own opinion on the man's sanity. I was forced to own that in a short interview, from the facts seen by myself, I could not have signed a certificate of insanity. I doubt not but that if I had expressed a willingness to sign one that the haste of the proceeding would have been used as an argument against its value.

I did say, however, that, taking my examination with the history of the man and the crime, I had no doubt that he was of unsound mind. The Judge opposed strongly attempts to get my opinion, believing the common sense of a jury to be the best judge of sanity. This is all very well if the facts are explained by one understanding their value, and not otherwise. That the patient knew he had killed his children, and that he knew he might be hanged, I could not deny, but knowledge of this kind does not exclude insanity.

I have patients of the most insanely dangerous class here who have said the same things which Gouldstone said, and who know as much as he does. Yet they are mad. William Gouldstone ought not to suffer without a careful independent investigation of his history and the history of his crime, one not confined to an examination of twenty minutes or half an hour.

I am, yours truly,
GEO. H. SAVAGE.

Bethlem Hospital, Sept. 17.

LETTER FROM GOULDSTONE'S WIFE.

(*Standard*, Sept. 20.)

"During our five years' married life I frequently noticed that my husband was absent-minded and given to brooding. If he were asked a question he would not, no matter how simple it was, or however easy to answer, reply at once. He would think over it, and sometimes say something not concerning the question. We commenced housekeeping on 21s. a-week, and latterly he had 25s. It was sometimes difficult to make ends meet when the children came so rapidly, and this weighed on his mind, I fear, although he never spoke of it to me—except in the way of saying how sorry he was that my hands were so full, and that we could not go out together as we used to do. That was the only way in which he ever spoke of the burden of the family. Before we had

the first child, and right on till the birth of the second, we regularly went to church. The second child was weakly, and the first was still only a baby, so that we could not leave the house together. For all his occasional absent ways he was very lively, and as I had all to do with the spending of the money, and did not let him know if there was any trouble about payments when there was a confinement or sickness in the house, I always found it very easy to turn his attention to something brighter. He was very kindly with me and the children, handy and willing if they were ailing, and he constantly helped me in household duties. He was a man who had few acquaintances except his own relatives and his follow-workmen, and he was nearly always at home when not at work, except on the Sunday morning, when he occasionally took a walk alone. But for hours together he would keep the children going with his concertina, which he was very fond of playing, while I was engaged in household duties. The children were very fond of him, and were never tired of listening to the concertina. If he seemed worried, amusing the children—at which he was very good—or a remark from me would at once change his mood. He was painfully aware of how easy it was for him to get worried, and he has often said to me that it was a good job he had not much to think of, as if he had he believed it would turn his brain. Nothing that ever he said or did before the loss of the little ones gave me the least fear that he would take his own life or that of anyone else. But shortly before my last babies were born he said to me that he believed he had not many weeks to live, which was a strange remark that I have often thought of since. He never complained, except that he did not know how I should manage with my hands already so full, and soon to be even fuller. But then lots of people manage on less, and we did very well, and when I put this before him he ceased to be moody and absent. I never knew till very lately that there was any insanity in the family. Knowing that now, and looking back on all that has happened, I am certain he was insane, and that the times when I found him sitting thinking lately he was distressing himself about our growing family. You see the eldest was 3½, bright and healthy, but the next, 2½, was sickly and could not walk, and the third being only 16 months, I had practically two babies to mind when the twins were born. But for all this there was no change in his kindly ways to me and the children. He got up early in the morning of the day when the twins were born, and got me a cup of tea, as he often did before, and did every morning from their birth till their death. The thing that struck me most was that during all this time he never took any notice of the babies. They were born about half-past ten, and he immediately went out of the house, and did not return till after twelve. He then came into the room to me, but did not speak. His appearance seemed changed, and his eyes were strange and wandering. He came home early on the day he attacked the poor things, and I asked him if he had told his foreman about the twins, as he had lived with him once, and we looked upon him as one of our own family, but he said he had not. Since the occurrence I have seen my husband three times at the House of Detention, once at the Old Bailey, and yesterday (Tuesday) in the prison at Chelmsford. On each occasion he has been as happy as a child at play. At Chelmsford he said he had seen several relatives whom he had not met for a long time, but neither he nor I made any reference to the fate of the children. His sister and aunt accompanied me yesterday. He asked me to take care of myself, and, turning to his relatives, said, 'You will take care of her, won't you?' Then he said, 'I have broken God's commandment, and I must expect to suffer, but He will forgive me for what I have done.' He realises his position in so far as he believes he will die, but he seems to have no notion of the enormity of killing the children. In a letter I had from him he spoke of them as being in heaven, where he hopes soon to join them. Here is a letter I have had from him, dated the 15th, in the same strain:—

"'My Dear Wife,—I feel it is a Pleasure to Write a few lines to you and trusting to God that it will find you as well as Can Be Expected after the

Dreadfull news but I am thankfull to God that I feel Happey as I may Expect and I Hope you will Look to God to Help you and He Will Comfort you as Well as myselfe Dearest Wife I Hope you will Receive this Letter this Evening and then I Hope you wont fret much about me as what God Doest is for the Best and I Hope you will Be able to Come and See Me Over a Short Time and I Hope Aunt and all at Home are quite Well and all Cousins and Rember me to all that know me, and Let Cousin Gouldstone in Mash-street know How I am and I am going to Send a few Lines to Mr. G. Sampford and I Hope all Will forgive me for I am thinking about you all. But I Hope you all Will Pray to God to Comfort One and all of you and Bear that in mind that God Will forgive all Dear Wife do not fret about what I Have to Live Upon Because I Can Have What I wish for in my Liveing from the Prison and you may Belive that the Chappelling will Give me all I Require and I thank God that I Have Been Preparing for the Other World and which I shell do more so now and Live in Hopes to meet you all in Heaven. So Good By God Bless you

"'WILLIAM GOULDSTONE,

"'Her Majesty's Prison, Chelmsford, Essex,
"Sept. 15, 1883.'"

TO THE EDITOR OF *The Daily Telegraph.*

SIR,—I am very happy to see that the true issue of this case is slowly but surely being placed before the public. As the employer of William Gouldstone, I am as sure as are his foreman and shopmates that he was insane when he committed the act. The ruling of the Judge, although, doubtless, a proper exposition of the law, precluded the jury from bringing in any other verdict than that of wilful murder. Had I myself been on the jury I should have felt compelled to return that verdict. That the man knew what would be the consequences of his act there can be no possible doubt.

Sir William Harcourt will have the whole matter carefully and fully laid before him, and it is satisfactory to know that his decision will not be based upon the dry letter of the law alone. This appears, indeed, to be a case in which law and common-sense are at variance.

Yours truly,
H. J. KENNARD.

67, Upper Thames street, Sept. 18.

TO THE EDITOR OF *The Daily Telegraph.*

SIR,—The Judge presiding at the Gouldstone trial told us (the jury) that the law regarding insanity was this, "That if a person was proved to be of sound mind up to the time of committing a certain deed; *if he knew the nature of that deed and the penalty it involved*, and if after this he still appeared of sound mind, we were bound according to this law to say such a person was not insane." What was the evidence? For five years he had worked at the Falkirk Iron Works, and had always done his work satisfactorily like a sane man. The seven witnesses who were called from these works admitted this, and they also stated that at intervals he had said he wished he was dead, that he would like to throw himself in front of a train or down the lift hole if he were sure of killing himself without any pain. He suffered from a rupture, and these remarks were often made when it pained him. When the great addition to his family came, he appeared somewhat upset, but did not mention the fact to any of his fellow-workmen. He then resolved to rid himself of his children, and intended at first to do it with a revolver, but thought that would make too much noise, so he planned it the other way, going out first, as he said, to have an extra drop of drink to nerve him to the job. When it was over he said, "Now I shall have the rope." The constable who took him, and the officer to whom he was handed in prison, stated that he seemed perfectly aware of what

he had done, and quite sane. We did not misunderstand Dr. Savage, who said he would not certify him as insane, though he had examined him, but he "considered he was of weak mind, owing to his slowness of appreciation of questions concerning the crime of which he was accused." The father and a sister stated that his mother and an aunt were at times of unsound mind and required looking after, but neither of them had ever been confined as lunatics. There was, however, a cousin of his father's on the male side who had been a soldier, and died in a lunatic asylum. These were the salient points of the evidence, and upon this the jury were quite agreed that the case of insanity was not made out, and therefore were compelled to return a verdict of guilty.

Yours obediently,

THE FOREMAN OF THE JURY.

TO THE EDITOR OF *The Times*.

* * * * * *

SIR,—There is one department of the law, that affecting homicidal crime, where a peculiar obscurity, or rather conflict, exists, at least in many instances; where the letter of the law, though plain, is in clear collision with the consensus of the best scientific medical observation also, and therefore, with equity and justice. The case of the Walthamstow murderer, now under sentence of death, affords an illustration. It was unmistakable, from the evidence at the trial, and, indeed, from the prisoner's own admission, that he well knew the nature of the act he was committing. Hence, too, that act is, plainly and legally, "wilful murder." But, from the testimony of the physician of Bethlem Hospital and others, it is similarly obvious that, notwithstanding this, the condition of the man's mind was, to say the least of it, very abnormal and doubtful.

And in so far as this may be the case, it is appropriate to bear in mind the very important resolution unanimously adopted at the annual meeting of the Association of Medical Officers of Asylums and Hospitals for the Insane, held at the Royal College of Physicians, London, on July 14, 1864, as follows :—

"That so much of the legal test of the mental condition of an alleged criminal lunatic as renders him a responsible agent, because he knows the difference between right and wrong, is inconsistent with the fact, well-known to every member of this meeting, that the power of distinguishing between right and wrong exists very frequently among those who are undoubtedly insane and is often associated with dangerous and uncontrollable delusions."

Such a resolution as the above by such a body is a virtual condemnation of the law by the responsible official exponents of modern medical science. And this, taken in connection with a series of Home Office precedents for interposition, constitutes a valid reason for expecting the Home Secretary, in such a case as the present one, to seriously reconsider the sentence.

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Yours truly,

WILLIAM TALLACK.

Howard Association, London, Sept. 17.

TO THE EDITOR OF *The Times*.

SIR,—It is a difficult thing to bring the public mind to think that a man who deliberately kills his five children ought not to be hanged as an example to deter others from doing the same thing. In the case of the convict Gouldstone there is reason to believe that what he wanted was to compass his own death, and he adopted an irrational method to accomplish what he desired. In any other case than murder an irrational act is accepted as ground at least for suspicion that the mind of the perpetrator is disordered; but in cases of murder no account is taken of the unreason of the act. The fact that a man

of good character, under the influence of a cause, or causes, held to be utterly inadequate by persons of sound mind, suddenly commits an act inconsistent with all his previous history, is in any other event than the perpetration of murder regarded as a very serious symptom arousing the most anxious fears on the part of his friends, especially if he has insane relations; but the law ignores all this, and asserts that a man is responsible for his actions if he knows the nature and quality of the act he commits, and that it is forbidden by law. This standard of responsibility is directly opposed to the established judgment of every person who has had any experience of the disordered mind. I sympathize with Dr. Savage as to his sense of duty as a recognized authority in such a matter, impelling him to make a public appeal for some further investigation of the circumstances. I agree with him that the act of William Gouldstone, taking into account the whole history, was an insane act, and none the less so because on every other subject his conduct and conversation was rational.

I am, Sir, your obedient servant,
W. Wood, M.D.,
Physician to St. Luke's Hospital.

No. 99, Harley street, Sept. 17.

JAMES COLE.

CENTRAL CRIMINAL COURT, OCT. 18.

(*Before* Mr. Justice Denman.)

James Cole, 37, labourer, was indicted for the wilful murder of Thomas Cole.

In August he was living with his wife at Croydon. Their two children, Richard, aged 14, and Thomas, three years eight months, also lived with them. Prisoner had been out of work for some time. On the evening of the 18th he took the child Thomas by the legs and knocked its head against the floor and walls. As the prisoner ran away he said to a man he met—"I have murdered my child."

It was elicited from the boy Richard that upon the night in question, the prisoner complained that his wife had hidden people under the floor and in the cupboard to try to poison him. He was jealous of his wife, but no ground for this suspicion appeared.

The plea of insanity was set up.

The surgeon and chief warder of Clerkenwell House of Detention gave evidence that the prisoner had displayed no symptoms of insanity, but had conducted himself in accordance with the prison regulations. On one occasion he became violent, but it was stated that it did not arise from unsoundness of mind.

For the defence, a brother of the prisoner was examined, and stated that some members of the family had been subject to fits.

Dr. Jackson, an alderman of Croydon, said he was quite certain that he was a typical lunatic, with dangerous delusions. In cross-examination, witness said the prisoner seemed to understand the questions put to him, and gave perfectly rational answers. He told him that he thought he was being poisoned, that his wife had set men on to him, that he used to shriek out and wake up at night thinking that people were murdering him. The prisoner acknowledged that he drank occasionally, and that he had been many times in prison for violence. The prisoner said he found a little drink made him lose his senses. The prisoner knew perfectly well that he was on his trial for murder. When asked how he could have treated his child so cruelly, he made no answer. In re-examination, Dr. Jackson said he believed the prisoner was in such a state of mind that no parish doctor ought to allow him to be at large, as he was dangerous.

Mr. Geoghegan, in defence, argued that there had been no motive for the commission of the crime, but that there were strong antecedent probabilities

that the prisoner was so unsound in his mind at the time that he did not know the nature and quality of the act he was committing.

Mr. Poland said that the prisoner's belief that attempts had been made to poison him would not be sufficient for any medical man to certify that he was insane, and thus necessitate his confinement in an asylum. It was for the jury to say whether the prisoner was a violent drunken man or an insane person fit for Broadmoor.

Mr. Justice Denman said it was an appalling case. As to the plea of insanity, the law as laid down by the House of Lords was, that every man was supposed to be responsible for his acts until the contrary was proved, and it must be shown that he was suffering from such a state of mental disease as not to know the nature and quality of the act he was committing, or that it was wrong. The Judge referred to the new Act regarding the treatment of persons alleged to be insane, and said that he observed that last session a learned colleague expressed dissatisfaction with the new enactment, in which, however, he was not inclined to disagree, the new Act not altering the law as to insanity as it previously stood, but only making a difference as to the formal verdict.

The jury found the prisoner *Guilty*.

The Judge, in sentencing the prisoner to death, said the learned counsel had attempted to make out that he was not responsible. The attempt had failed, and he must express his opinion that, according to the law of England, it had rightly failed. "Although it was, I think, established in evidence that you had been suffering from delusions, I cannot entertain a doubt that on the occasion on which you violently caused the death of your child, you know you were doing wrong, and knew that you acted contrary to the law of this country, and that you did it under the influence of passion, which had got possession of your mind from want of sufficient control, the result being that the poor child came by a sudden and savage death."

Fortunately, Sir William Harcourt ordered a medical examination of Cole to be made by Dr. Orange and Dr. Glover, with the result that he was found to be unquestionably insane, and he was reprieved. (See Occasional Notes of the Quarter.)

Side by side with the foregoing practical opinion, it may be well to place on permanent record the theoretical rhapsodies of lay writers of leading articles in leading newspapers. The day after the trial of Cole the following discreditable article appeared in the *Times* :—

. . . There was the usual defence of insanity. It was urged that the prisoner had been so violent when in prison that he had to be put in a padded cell; that he had used, as was very probable, threats to his wife, and that he had frequently been in prison for crimes of violence. These not uncommon symptoms of lawlessness and ruffianism satisfied one doctor that Cole was "a typical lunatic with dangerous delusions." But the jury were not convinced by the familiar argument that a man who does anything particularly wicked must be insane, and they found the prisoner guilty of murder. For years the plain men who sit in jury boxes have been assailed by medical theorists who seek to discredit all the homespun ideas as to responsibility. A *quasi*-scientific terminology or jargon, very advantageous for everyone who happens to be self-indulgent and passionate has been invented. Theories destructive of society's right to punish some of its most dangerous foes—which would save from the gallows all but those who showed in their evil deeds some scruple and compunction—have been promulgated in books and in the witness-box. The legal doctrine as to insanity has been cried down as unscientific. Juries have often been frankly invited to find a person of unsound mind just because he had committed a particularly monstrous crime. But with rare exceptions they decline to be convinced by this sophistry, and have clung to the legal, which in this matter is the common-sense view, and have held answerable for their actions men whom so-called experts would consign to Broadmoor Lunatic Asylum. It seems to have been proved that Cole entertained some delusions. But it was not shown that they at all affected his conduct towards his child; and there cannot be a doubt as to the righteousness of the verdict. This, however, may not conclude the matter. A case, the circumstances of which are not yet forgotten, has shown that a jury may come to the opinion that the evidence offered to substantiate a defence of insanity is quite insufficient, and act upon their view; and that the Home Office may nevertheless put their verdict aside. At the last sitting of the Central Criminal Court, Gouldstone, a blacksmith at Walthamstow, who had deliberately killed his five children, was convicted of murder; the jury, declining to be guided by the vague evidence as to his mental weakness. But for reasons satisfactory to the Home Secretary and his advisers, the jury were overruled, and Gouldstone was sent to Broadmoor. Who are to be punished if the hideousness of a crime is taken to be indi-

cative of insanity? Who are to be responsible if a jury must not convict unless they see that the prisoner had some really adequate motive for what he did? . . . . It is needless to say that it would be incumbent upon "mad doctors" to expound in the witness-box their views with great caution, even if they were all at one with regard to essentials. It is no light matter to shock the conscience of a community and to perplex people's sense of justice, as must be the case when the very magnitude of a criminal's wickedness seems to be a claim to immunity. Society has good reason to dread the effects of the spectacle of moral monsters being treated as irresponsible. But no such agreement exists. The books written by experts show that they are at variance as to the terminology of their so-called science; that scarcely two accept the same classifications of mental diseases; and that the tests of their existence are altogether uncertain and debatable. It is well from time to time to remind those who dogmatize from the witness-box about insanity of the provisional character of their conclusions. In the last resort, the Home Secretary is the final Court of Appeal as to these questions; and no doubt he takes pains to obtain the best medical advice before making up his mind. But this tribunal is far from being so satisfactory as could be wished. Its decisions are in the main determined by the reports of experts who are sometimes tempted to apply much too refined tests, leading to parodoxical results. For the present, and until the mystery of mental diseases—for example, the effect on conduct of collateral delusions and the extent to which certain dangerous tendencies are hereditary—are cleared up, much more than is now the case, it will be well at the Home Office and elsewhere to rate cheaply theorists who gauge the extent of a criminal's insanity by the magnitude of his crime, who would spare a Troppman and hang a half-hearted imitator.

CONTEMPLATED LUNACY LEGISLATION IN FRANCE.

In a former number of the Journal we stated that the propriety of revising the French Lunacy Laws was under consideration, and we referred to several of the more important proposals contained in the *Projet de Loi portant revision de la loi du* 30 *Juin*, 1838, *sur les Aliénés*, presented to the Senate by the Minister of the Interior, M. A. Faillières.

The Commission appointed by the Senate to prepare this Bill decided before separating to investigate the laws affecting the insane in other countries—Belgium, Holland, England, and Scotland. For this purpose they delegated the following: Dr. Dupré, Professor of the Faculty of Medicine, Montpellier, President, Dr. Théophile Roussel, M. Delsol, formerly Professor of Law, M. Tenaille-Saligny, Dr. Frezoul, Dr. Brugerolle, Secretary. Dr. Achille Foville, Inspector General of the Administrative Service, was appointed by the Minister of the Interior to accompany the Commission and aid them, as he was so peculiarly well qualified to do, in their difficult task.

This Senatorial Commission visited England and Scotland last October, and it afforded their English *confrères* much pleasure to afford them every facility within their power to pursue their enquiry. Among the institutions they visited were Bethlem Hospital, Broadmoor, Brookwood, the Woking Prison, Caterham, and the York Retreat. They attended by appointment at the offices of the Lunacy Commissioners and the Lord Chancellor's Visitors, and obtained much valuable information bearing on the object in view. In Edinburgh the Commissioners in Lunacy assisted the delegates in every way likely to further the investigation, and the latter visited the Royal Edinburgh Asylum, the Lenzie and Gartnavel Asylums at Glasgow, the Fife and Kinross Asylum, and acquired all the information they were able respecting the working of the boarding-out system at Kenoway, &c.—the main object of their visit.

We are glad to know that the Commission are gratified with the attention paid them in Britain, and feel themselves repaid for their labours by the welcome accorded them and the information they were able to collect. We on our part must express our sincere pleasure in the visit of the Commission to our shores, our sympathy with their laudable object, and our desire that their endeavours may bear fruit in the amendment, so far as amendment is needed, of the lunacy law of 1838, which, notwithstanding its shortcomings at the present day, was a monument of legislative wisdom at that period. On the return of the Commission to France, the following appeared in the *Telegraphe*, (Paris), 25th October, 1883:—

"Ce voyage vient de se terminer; les sénateurs sont rentrés à Paris hier.

Partout ils ont été accueillis non seulement avec le plus grand empressement mais avec une réelle distinction.

"Les ambassadeurs de France auprès desquels ils étaient accrédités, les ministres des diverses puissances avec lesquels ils ont été mis en rapport, les aliénistes les plus éminents des pays parcourus ont facilité leur tâche avec la plus extrême courtoisie.

"Les établissements dignes de quelque intérêt général, spécial ou historique, ont été visités; les portes de tous les asiles, celles des prisons pour les aliénés criminels leur ont été largement ouvertes; des conférences nombreuses et prolongées avec les administrateurs les plus élevés du service n'ont laissé dans l'ombre aucun détail important.

"La délégation rapporte un nombre considérable de documents précieux; sa tâche en sera facilitée et tout permet d'espérer que la session de 1884 ne se terminera pas sans que le projet de loi du gouvernement soit discuté et voté avec certaines modifications déjà pressenties et dont l'étude et la réflexion préciseront la nature et l'importance."

DALRYMPLE HOME FOR INEBRIATES.

With a view to giving a really fair trial to the Habitual Drunkards Act of 1879 a new establishment, under the above name, was opened yesterday at Rickmansworth. It is prettily situated on the banks of the Colne, and will accommodate sixteen patients. The plan of management has been worked out by Dr. Norman Kerr, F.L.S., and an influential committee, aided in the first instance by a gift of £1,000 by Mrs. Dalrymple, widow of Dr. Dalrymple, who took great interest in the reclamation of inebriates. Patients will be admitted either under the provisions of the Act, binding them to remain twelve months, or by voluntary and private engagement, on payment ranging from a guinea and a half per week upwards. The home is under the management of Dr. J. Smith, late honorary surgeon to the Royal Surrey County Hospital, in whose experience, skill, and judgment the greatest confidence is placed. Six applications have already been received and accepted—three under the Act, with the stringent provision that the dipsomaniac himself and two witnesses shall make formal deposition before a magistrate, and three by private stipulation. It is understood that, in order to avoid an evil that has crept in at similar and more secluded establishments, the use of alcohol shall be permitted only by special medical order. Hopes are entertained that sufficient contributions and donations may be received to enable the Committee, which is presided over by the Earl of Shaftesbury, to open a home for women suffering from the effects of habitual inebriety. On the invitation of the Committee, a party of about eighty ladies and gentlemen went from Euston yesterday to see the new home. The company included Canon Duckworth, Lord Claud Hamilton, Dr. Norman Kerr and Mrs. Kerr, Sir Martin Tupper, ex-Prime Minister of Nova Scotia; Sir Spencer Wells, ex-President of the Royal College of Surgeons; Dr. Hare, President of the Metropolitan Branch of the British Medical Association; Dr. Hack Tuke; Mr. John Taylor, President of the National Temperance League; the Very Rev. Dr. Dickeson, Dean of the Chapel Royal, Dublin, and Chairman of the Church of Ireland Temperance Society; Mr J. H. Raper and Mr. F. Hilton, United Kingdom Alliance; Mr. R. Rae, National Temperance League; Dr. George Eastes and Mrs. Eastes, Mr and Mrs. Axel Eustafson, the Hon. Reginald Capel, Mr. Gilliatt, Prof. Sydney Thompson, Mr. F. S. Alford, and Dr. Bridgewater. The home is a well-furnished house, containing dining-room, drawing-room, billiard-room, and fairly good-sized bedrooms, overlooking a garden and a tennis-lawn, and a wide stretch of verdant country beyond. The situation and comparative seclusion are, indeed, all that could be desired. The sanitary arrangements have been adequately carried out under the direc-

tion of Mr. H. H. Collins, F.R.I.B.A. At a meeting in the billiard-room, presided over by Canon Duckworth, speeches in support of the object in view were made by several of those present. It was strongly urged by the medical men and other gentlemen competent to form an opinion that the habitual drunkard is, by the continual use of stimulants, deprived of all will-power to resist the fatal fascination, until the natural tone of the system is recovered by a sufficiently long period of total abstinence.—*Daily News*, Oct. 30.

Appointments.

Burke, Hubert, W., L.R.C.S., L.R.C.P.Ed., L.S.A.Lond., to be Resident Medical Officer to St. George's Retreat, Burgess Hill, Sussex.

Bush, J. D., F.R.C.S., to be Clinical Assistant to the Birmingham Borough Asylum.

Cocks, Horace, M.B., C.M.Ed., to be Assistant Medical Officer to the Rubery Hill Lunatic Asylum, Bromsgrove, Worcestershire.

Drapes, Thomas, M.B., to be Resident Medical Superintendent to the Enniscorthy Lunatic Asylum.

Glendinning, James, M.D., F.R.C.S., to be Medical Superintendent of the Joint Counties Asylum, Abergavenny.

Hill, Hugh Gardner, M.R.C.S., to be Assistant Medical Officer to the Cane Hill Asylum.

Nelis, William F., L.R.C.P.Ed., to be Senior Assistant Medical Officer to the Joint Counties Asylum, Abergavenny.

Rowe, Edmund L., L.R.C.P., and L.R.C.S.Ed., to be Second Assistant Medical Officer to the County Asylum, Gloucester.

Richardson, William, M.B., C.M.Edin., Senior Assistant Physician, Crichton Royal Institution, Dumfries, has been appointed Medical Superintendent of the Isle of Man General Lunatic Asylum, Douglas.

Thompson, D. G., M.D.Ed., to be Senior Assistant Medical Officer to the Cane Hill Asylum.

ASYLUM REPORTS.

The Editors will be obliged to the Superintendents of Asylums to send them their Annual Reports, addressed to Messrs. Churchill. Very few reach them at present.

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STATISTICAL TABLES

OF THE

Medico-Psychological Association.

ADOPTED 1883.

TABLE I.

Showing the Admissions, Re-admissions, Discharges and Deaths during the Year ending 31*st December*, 18 .

	M.	F.	T.	M.	F.	T.
In the Asylum, January 1st, 18 ...						
Cases admitted—						
First admissions						
Not first admissions						
Total Cases admitted during the year ...						
Total cases under care during the year...						
Cases discharged—						
Recovered						
Relieved...						
Not improved						
Died						
Total cases discharged and died during the year						
Remaining in the Asylum 31st Dec., 18						
Average number resident during the year						
*Persons** under care during the year† ...						
Persons admitted „ „ ...						
Persons recovered „ „ ...						
Transferred‡ to this asylum						
„ from this asylum						

* Persons, *i.e.*, separate persons in contradistinction to "cases" which may include the same individual more than once.

† Total cases, minus re-admissions of patients discharged during the current year.

‡ Patients transferred from one asylum, &c., to another, even when re-certified, are to be regarded as transfers.

TABLE Ia.

Showing (1) the Previous Attacks among Persons Admitted during the Year 188 , *and (2) the Number of Times they had Previously Recovered in this or any Asylum.*

(1) Number of Previous Attacks.	Persons.		
	Male.	Female.	Total.
Have had 1 Attack			
„ 2 Attacks			
„ 3 „			
„ 4 „			

(2) Number of Times Patients Recovered.	In this Asylum.			In any Asylum.		
	M.	F.	T.	M.	F.	T.
Once						
Twice						
3 times						
4 „						
5 „						
6 „						

TABLE II.

Showing the Admissions, Re-admissions, Discharges and Deaths, from the opening of the Asylum to the 31*st December*, 18 .

	M.	F.	T.	M.	F.	T.
Persons admitted during the period of — years						
Re-admissions						
Total *cases* admitted						
Discharged *cases*—						
Recovered						
Relieved						
Not improved						
Died						
Total *cases* discharged and died since the opening of the asylum ...						
Remaining 31st December, 18						
Average number resident during the — years						
Transferred to this asylum						
,, from this asylum						

N.B.—If not practicable to obtain these figures from the opening of the asylum, it is hoped that the information will be carried back as far as possible.

TABLE IIa.

Showing the Admissions and Recoveries of Persons* *from* *to*
the present date, 31*st December,* 18 .
(years.)

History of Recoveries of Persons.				The same, only omitting all Persons Transferred from other Asylums, &c.		
	M.	F.	T.	M.	F.	T.
Persons admitted during the years	*538*	*513*	*1051*	*340*	*322*	*662*
Of whom were discharged recovered, during the same period, being 21·9 per cent. of *persons* admitted ...	*115*	*114*	*229*	*108*	*107*	*215 (32·4)*
Of whom were re-admitted relapsed† ...	*31*	*28*	*59*	*31*	*28*	*59*
Leaving recovered persons who have not relapsed	*84*	*86*	*170*	*77*	*79*	*156*
Relapsed persons discharged recovered‡	*17*	*13*	*30*	*17*	*13*	*30*
Net ‖ recovered persons, being 19·1 per cent. of persons admitted ...	*101*	*99*	*200*	*94*	*92*	*186 (28.1)*

N.B.—If not practicable to obtain these figures from the opening of the asylum, the information should be carried back as far as possible.

* Persons, *i.e.*, separate persons in contradistinction to *cases* which may include the same individual more than once.
Re-admission applies only to re-admission into this asylum.

† *i.e.*, Persons who have relapsed one or more times.

‡ *i.e.*, After last re-admission, if relapsed more than once.

‖ *i.e.*, Recovered persons sane at the present time so far as the asylum statistics show.

The figures in this table are merely given as illustrations.

TABLE III. (UNCHANGED.)

Showing the Admissions, Discharges, and Deaths, with the mean Annual Mortality and proportion of Recoveries per Cent. of the Admissions, for each Year since the opening of the Asylum, , 18 .

YEAR.	ADMITTED.			DISCHARGED.									DIED.			Remaining 31st December in each year.			Average Numbers Resident.			Percentage of Recoveries on Admissions.			Percentage of Deaths on the average Numbers Resident.		
				Recovered.			Relieved.			Not Improved.																	
	Male.	Female.	TOTAL.	Male.	Female.	TOTAL.	Male.	Female.	TOTAL.	Male.	Female.	TOTAL.	Male.	Female.	TOTAL.	Male.	Female.	TOTAL.	Male.	Female.	TOTAL.	Male.	Female.	TOTAL.*	Male.	Female.	TOTAL.*
TOTAL ...																Average or percentage.											

* The Totals must be worked out separately, and not as is often done by adding the Male and Female columns together and dividing by two. The average percentage of deaths during the period the asylum has been opened must not be obtained by merely adding the percentages for all the years and dividing by the number of years in question.

TABLE IV. (UNCHANGED.)

Showing the History of the Annual Admissions since the Opening of the Asylum, , 18 , with the Discharges and Deaths, and the Numbers of each Year remaining on the 31st December of the Year reported on.

YEAR.	ADMITTED.					OF EACH YEAR'S ADMISSIONS DISCHARGED AND DIED IN 18 .												TOTAL DISCHARGED AND DIED OF EACH YEAR'S ADMISSIONS TO 31ST DECEMBER, 18 .												Remaining of each Year's Admissions, 31st December, 18 .		
	New Cases.		Relapsed Cases.		TOTAL.	Recovered.			Relieved.			Not Improved.			Died.			Recovered.			Relieved.			Not Improved.			Died.					
	Male.	Female.	Male.	Female.		Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.

SUMMARY OF TOTAL ADMISSIONS.

	Male.	Female.	Both Sexes.
Percentage of Cases Recovered			
,, ,, Relieved			
,, ,, Not Improved			
,, ,, Died			
,, ,, Remaining ...			

TABLE V.

Showing the Causes of Death during the Year 18 , together with the Ages at Death.

Cause of Death.	Under 15 Years.			15 and under 20.			20 and under 25.			25 and under 30.			30 and under 35.			35 and under 40.			40 and under 45.			45 and under 50.			50 and under 55.			55 and under 60.			60 and under 65.			65 and under 70.			70 and under 75.			75 and under 80.			80 and under 85.			85 and under 100.			Not known.			Totals.		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
The Committee recommend that the nomenclature of Diseases of the College of Physicians be adhered to, as far as possible.																																																							
TOTAL																																																							

Ascertained by *post mortem* examinations ... ... Males ; Females.

TABLE VI.

Showing the Length of Residence in those Discharged Recovered, and in those who have Died, during the Year 18 .

Length of Residence.	Recovered.			Died.		
	M.	F.	T.	M.	F.	T.
Under 1 month						
1 month and under 3 months						
3 months and under 6 months ...						
6 months and under 9 months ...						
9 months and under 12 months ...						
1 year and under 2 years						
2 years and under 3 years						
3 years and under 5 years						
5 years and under 7 years						
7 years and under 10 years						
10 years and under 12 years						
12 years and under 15 years						
15 years and under 20 years						
20 years and under 25 years						
25 years and under 30 years						
30 years and under 35 years						
35 years and under 40 years						
40 years						
Total						

TABLE VII.

Showing the Duration of the Disorder on Admission in the Admissions, Discharges, and Deaths, during the Year 18 .

CLASS.	The Admissions.			The Discharges.						The Deaths.		
				Recovered.			Removed, Relieved, or otherwise.					
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
First Class. First Attack, and within Three Months on Admission												
Second Class. First Attack, above Three, and within Twelve Months on Admission ...												
Third Class. Not First Attack, and within Twelve Months on Admission...												
Fourth Class. First Attack or not, but of more than Twelve Months on Admission ...												
Fifth Class. Congenital												
Total												

TABLE VIII.

Showing in Quinquennial Periods the Ages of those Admitted, Recovered, and Died, during the Year 18 , *and of those remaining on* 31*st December*, 18 .

Ages.	The Admissions.			Recovered.			The Deaths.			Patients Resident 31st December, 18 .		
	Male.	Female.	Total	Male.	Female.	Total.	Male.	Female.	Total.	Male	Female.	Total.
5 years and under 10 years												
10 years and under 15 years												
15 years and under 20 years												
20 years and under 25 years												
25 years and under 30 years												
30 years and under 35 years												
35 years and under 40 years												
40 years and under 45 years												
45 years and under 50 years												
50 years and under 55 years												
55 years and under 60 years												
60 years and under 65 years												
65 years and under 70 years												
70 years and under 75 years												
75 years and under 80 years												
80 years and under 85 years												
85 years and under 90 years												
Unknown												
Total												
Mean Age												

TABLE IX.

Showing the Condition as to Marriage, in the Admissions, Recoveries, and Deaths, during the Year 18 , *and of Patients Resident December* 31*st*, 18 .

CONDITION IN REFERENCE TO MARRIAGE.	THE ADMISSIONS.			THE DISCHARGES. RECOVERED.			THE DEATHS.			PATIENTS RESIDENT DECEMBER 31ST.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
Single												
Married												
Widowed												
Unknown												
TOTAL ...												

TABLE X.

Showing the probable Causes of Insanity in the Patients Admitted during the Year 18 .

Causes of Insanity.	Number of Instances in which each Cause was Assigned.											
	Admissions { M. F. T. — No. of Cases.											
	As predisposing cause.*			As exciting cause.			As predisposing or exciting (where these could not be distinguished).			Total.†		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
Moral: Domestic trouble (including loss of relatives and friends)												
Adverse circumstances (including business anxieties and pecuniary difficulties) ...												
Mental anxiety and worry (not included under the above two heads), and overwork												
Religious excitement												
Love affairs (including seduction)												
Fright and nervous shock												
Physical: Intemperance in drink												
,, sexual												
Venereal disease												
Self-abuse (sexual)												
Over-exertion												
Sunstroke												
Accident or injury												
Pregnancy												
Parturition and the puerperal state												
Lactation												
Uterine and ovarian disorders												
Puberty												
Change of life												
Fevers												
Privation and starvation												
Old age												
Other bodily diseases or disorders												
Previous attacks												
Hereditary influences ascertained (direct and collateral)												
Congenital defect ascertained												
Other ascertained causes												
Unknown												

Note.—* With reference to the distinction between "predisposing" and "exciting" causes, it must be understood that no single cause is enumerated as both predisposing and exciting in the case of any individual patient.

† The figures in the Total column represent the entire number of instances in which the several causes (either alone or in combination with others) were stated to have produced the mental disorder. The excess of the aggregate of such causes over the number of patients admitted is owing to combinations of causes.

TABLE XI.

Showing the form of Mental Disorder on Admission in the Admissions, Recoveries, and Deaths of the Year 18 , *and the form of Mental Disorder of the Inmates on* 31*st December*, 18 .

Form of Mental Disorder.*	Admissions.			Recoveries.			Deaths.			Remaining in Asylum. Form of Mental Disorder, 31 Dec., 18 .		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
Congenital or Infantile Mental Deficiency...												
„ α with Epilepsy												
„ β without Epilepsy												
Epilepsy acquired												
General Paralysis of the Insane												
Mania—												
„ Acute†												
„ Chronic												
„ Recurrent												
„ A Potu												
„ Puerperal												
„ Senile												
Melancholia—												
„ Acute†												
„ Chronic												
„ Recurrent												
„ Puerperal												
„ Senile...												
Dementia—												
„ Primary												
„ Secondary												
„ Senile												
„ Organic (*i.e.*, from Tumours, Coarse Brain Disease, &c.)												

* The subclasses are optional; other classes as Delusional or Moral Insanity may be inserted. Congenital, Epileptic, General Paralytic, and Puerperal Cases, &c., are not to be repeated under other headings.

† Including cases which, while not acute in the sense of "active," are recent.

TABLE XII.

Showing the Station or Occupation of Patients admitted during the Year 18 .

MALES.

Accountants	Brought forward ... ...
Artist	House Painters ... ...
Architect	Horse-keepers and Stablemen ...
At School	Hawkers ... ...
Army Pensioner	Hair-dresser ... ...
Agent	Iceman ... ...
Bakers	Labourers ... ...
Barristers	Lamp-maker ... ...
Blacksmith	Money-taker ... ...
Boot and Shoe-makers	Musician ... ...
Brick-maker	Miner ... ...
Brass Finisher	Oilshop-keeper ... ...
Bookbinder	Paper-maker ... ...
Butcher	Police Pensioner ... ...
Coach-builders	Professors of Languages ...
Clerks	Plasterer ... ...
Coachmen	Porters ... ...
Cork-cutter	Pianoforte Stringer ... ...
Carmen	Surgeon ... ...
Cabinet-maker	Servants ... ...
Carpenters	Stoker ... ...
Compositors	Soldiers ... ...
Cabmen	Silk-weaver ... ...
Chair-maker	Sailor ... ...
Cheesemonger	Sawyer ... ...
Carpet Printer	Tailors ... ...
Drapers	Travellers ... ...
Drover	Waiter ... ...
Engine Fitter	Upholsterer ... ...
Engineers	&c.
Farrier	No Occupation ... ...
Farmers	Not ascertained ... ...
Fireman	
Fishmonger	Total ... ...
Carried forward	

The Occupations mentioned in this Table are merely given as examples.

TABLE XII.—*Continued.*

Showing the Station or Occupation of Patients admitted during the Year 18 .

FEMALES.

Artist ... ...
Boatwoman ... ...
Barmaid ... ...
Box-maker ... ...
Charwomen ... ...
Cooks ... ...
Dressmakers ... ...
Feather Curler ... ...
Governesses ... ...
Housekeepers ... ...
Ironers ... ...
Laundry Women ... ...
Lodging-house Keeper ... ...
Milliners ... ...
Map Colourer ... ...
Nurses ... ...
Needlewomen ... ...
Prostitute ... ...
Servants ... ...
Shopwoman ... ...
Shop-keeper ... ...
Tailoress ... ...
Teacher of Music... ... ...

Widow of—

Carter ... ...
Cabman ... ...
Valet ... ...

Daughter of—

Accountant... ... ...
Bronze Powder Manufacturer ...
Cabinet-maker ... ...
Engine Driver ... ...
Farmer ... ...
Newsagent ... ...
Wheelwright ... ...

Carried forward ... ...

Brought forward ... ...

Wife of—

Bricklayer's Labourer ... ...
Bricklayer ... ...
Boot-maker... ... ...
Brewer's Servant ... ...
Carman ... ...
Cabinet-maker ... ...
Constable ... ...
Commercial Traveller ... ...
Collector ... ...
Carpenter ... ...
Cook... ... ...
Coachman ... ...
Glazier ... ...
Haybinder ... ...
Labourer ... ...
Metal Polisher ... ...
Plumber ... ...
Porter ... ...
Publican ... ...
Roadman ... ...
Stone Mason ... ...
Stationer's Assistant ... ...
Sign Writer ... ...
Seedsman ... ...
Ship's Steward ... ...
Tailor ... ...
Undertaker... ... ...
Warehouseman ... ...
&c.

No Occupation ... ...
Not ascertained ... ...

Total ... ...

The Occupations mentioned in this Table are merely given as examples.

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